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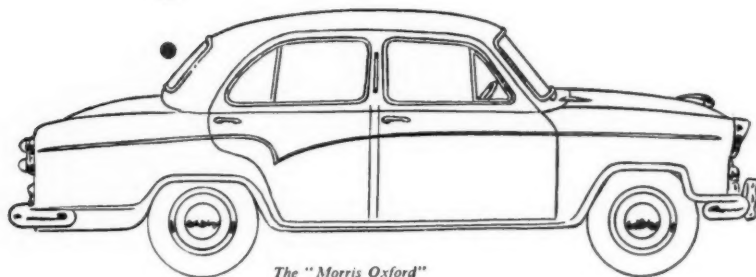


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Respect for the Aged

IF you want to start a lively argument, ask whether individual owners should be allowed freely to sell objects of national importance or interest to overseas buyers. Cases of Americans buying Scottish castles and shipping them home in batches of numbered stones are rare, but many other valuable items and collections have passed over the oceans from the British Isles.

The owner of a picture or antique valued at over £500 must obtain permission from the Fine Arts branch of the Export Licensing branch of the Board of Trade before it may be exported. We would like to see some such control placed on the export of veteran motor cars. We do not advocate this only for sentimental reasons; these ancient vehicles represent a valuable, tangible history of the development of the motor car. They are irreplaceable and many a lesson can be learnt from their design features. The French have recently accepted this view and now control exports from their country.

In naming veteran cars above we do not, in this instance, intend to specify only those built before 1905. Each elderly vehicle would need to be considered on its merits and for its rarity, and an arbitrary minimum age for protection might be 30 years.

Private collections which can be examined by appointment and others available to the public such as those assembled by Lord Montagu at his Beaulieu Museum, are probably of greater worth than individual vehicles. It is in the country's interest that important collections should be preserved as such.

A counter argument sometimes put forward is that early British cars should be allowed to go to American collectors because, in the main, there will be more money available for their maintenance, renovation and proper storage. It is unhappily true that several fine old vehicles in this country are but poorly cared for.

There is also the point that these veterans preserved and displayed abroad are a first-class commendation for British or European cars today. Both contentions have some merit but we would rather try keeping the worthy examples safe in this country and persuading (or helping) lax owners to mend their ways as well as their cars.

Exercise, and an Airing

UNLIKE the majority of ancient objects, veteran motor cars are not best kept immobile in glass cases. They should be exercised from time to time and shown in action to the public. The defect of national collections in museums is that they are often restrictive in this respect. Fortunately Mr. C. F. Caunter, who has charge of the Science Museum collection (though he does not at present have the money to renovate or the space to display them all), believes in occasional sensible exercises for his elderly inmates; so does Lord Montagu for his cars, whether owned or loaned.

There have been countless examples of funds being raised for purposes of restoration and preservation. When, as will be unavoidable in some instances, valuable groups and collections of cars have to be put up for sale, it would be comforting to know that a responsible organization existed which could purchase them intact for the benefit of the nation.



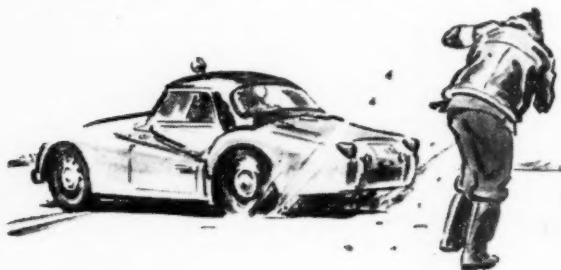
NUMBERS UP

"What I really enjoy is a quiet weekend in the garden, but I'd always had a hankering to go rallying in a modest kind of way"

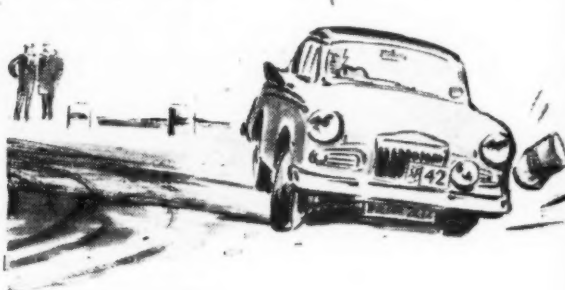
THERE has to be a first time for every rally driver, even though some hairy, tam-o'-shantered crews look as if they had been clocking in at controls since Hannibal won his *coup des Alpes*. Some manage to learn quite a lot in advance by making a few trips as second dickie, but I had to launch off at the wheel equipped only with a big number, and hope. (Faith stayed at home to look after the lodger—both living on charity because the housekeeping had gone on rally expenses.)

Once *en route*, we stopped occasionally to let the navigator decide which way up his map should be held; then I made notes about some of the things we had not done or had not anticipated. Our slogan was "Finish honourably without

There are several ways to get off the mark, and the best is not to spin the wheels violently. The way to learn is to practise—on tarmac, on concrete, on loose gravel and on mud. Start at once to make mental notes of where you can find the right surfaces and slopes on which to have a go before your next, or first, rally. For the best results, you will need to use the actual types of car and tyre proposed for rallying. Follow the get-away practice with full-power acceleration over rough surfaces, and make sure that you do not get excessive axle hop or clutch judder when you are giving the car its lot. You will probably have to play about with dampers and tyre pressures if you are going to use a standard production touring model to best advantage. It may help to seat the navigator in the back over the



"... not to spin the wheels violently ..."



"... or side-swipe the markers."

breakage," so we kept within 500 r.p.m. of the wrong side of the rev counter's red sector, and did not pass on blind corners.

Being of a generous nature and having little competitive instinct (as I was told whenever I showed signs of stopping to help another man in trouble), I hand on these invaluable hints in case there are others about to try their luck. Here are some of the considerations to do with the car, its equipment and how it can be driven, which should all be in mind when you are planning to enter a rally.

Rallies have a way of leading you through uninhabited wastes, and areas where the fuel pump attendants observe seven early closing days a week. It is hard to freewheel at 30 m.p.h. average in the Welsh mountains, and terribly nerve-fraying. Therefore, the tank should have capacity for 300 or more miles.

There are cars, too, that will cut out momentarily on a fast corner if their tanks are less than a quarter-full, quite upsetting the drift calculation and losing you seconds in a timed climb; check for fuel feed and surge.

Essential will be an instantaneous start, and the tick-over should be set at about 1,000 r.p.m. Organizers may require you to start a test on the drop of a handkerchief with engine switched off. If the key switches on the ignition and works the starter with one half twist, and the engine starts and picks up at once and you go off with a rush, think how much quicker you will be than the man who stays choigning on the line, using two hands to switch on and press the starter button, and a third to work the brake lever and steering wheel, and then, perhaps, stalls when he lets the clutch in because the engine hasn't taken hold properly. What is more, engines with a slow tick-over are liable to surge stalling if you have to make a crash stop across a line and reverse back again.

driving wheels during tests (Citroens, D.K.W.s, etc., excepted).

You will also have to stop—often on dirt roads and downhill. A few minutes' observation at any rally test will show you that hardly any of the competitors can judge their crash-stopping ability and distances within 10 yards on unfamiliar surfaces. You see the car nod violently following a panic stab on the brake pedal 30 yards from the line. Next the front wheels start to slide 15 yards from the line. Then the last five yards is covered at a gentle roll. And a few people stop short and have to restart, while others overshoot or side-swipe the markers.

Depending on the car, there is probably something to be said for sighting lines on tests involving accurate stopping. For those who have not noticed them, they take the form of tape (scotch only for the R.S.A.C. rally) or paint lines on the bulging door, side and/or wing of the car. They stretch between the assumed centre of the driver's right eye and the points of contact of the front and rear tyres with the ground (which you can seldom see from the car). The driver looks along the tapes and when the line on the road passes the extensions of the sighting lines he is clear over it—front and rear wheels—or not, as the requirements may be. In the heat of the fifth of a second, this may save you a penalty for not crossing or straddling a line.

There are occasions when hindsight is as important as that ahead. Some drivers prefer to peer out of the side and look backwards; others, with much practice, can reverse to a passenger's instructions. Then again, if the rear window and the interior mirror are large, these alone may suffice. Tail fins are quite handy as reversing guides (we had always thought they must have some use). Poky little rear windows are to be avoided. It is a good idea to provide the navigator with his own rear view mirror and horn button.

Gears need to be changed frequently, accurately, quickly. At the risk of being obvious I might add that mistakes in gear changes can lose seconds, and so the box and change and lever position had all better be just right.

If it is to be a long rally, there is no point in being spartan. Make sure of being comfortable, with a reasonably high, alert sitting position, plenty of bucketing low down to hold you in position on corners, and convex curvature to give support at the right place in the small of your back. If they are not already suitable, adjust the brake and accelerator pedals so you can heel-and-toe (not only for the R.S.A.C. rally). Arrange proper stowage for all the equipment, maps, torch, food, tools and so on.

On many rallies, a Halda Speed Pilot is more than a luxury—you are better equipped if you have one. When you fit it, it is advisable to find a position which allows the navigator to read the trip mileage as well as the speed average, to calibrate it accurately—not simply against the ordinary car speedometer—and remember that if the drive take-off is to be a "T" junction piece behind the speedometer, the cable of the speedo will break more readily (is that possible?). In other words, check the speedo drive cable and its routing more carefully because the cable will be doing extra work, and take a spare cable with you. No speedo=no Halda=no average, except by watch and milestones—which are usually missing or overgrown except on French main roads.

If you have a rev counter, it is a good thing to calibrate the speedo against it on top gear and perhaps third, so that if one or other fails you still have some readings. Your wife's red nail varnish (or someone else's) will do a neat, quick marking job on the instrument glasses.

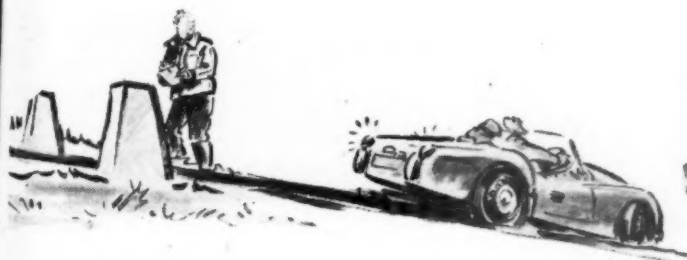
as a result of a broken pipe, you will not get very far on hand brake alone (I know; I have tried). But it may be possible, according to where it has broken, to fold over and nip the pipeline and so perhaps have two front brakes which work—always supposing you have a small tin of fluid for refilling after the fracture. Water will not do!

There is nothing like a rally with plenty of tests to bring out the weaknesses of a badly designed, poorly placed hand brake. Give me a good honest lever beside the seat, left or right, which I can pull up or let down at a natural angle. For rallying the fly-off type is perhaps best.

Is there anything else? Well, yes. Prepare and mark your maps very carefully, and keep as much ahead of schedule as you can and regulations permit, i.e., bang up to maximum average speed. If you can take a look at part or all of the difficult sections in advance, do so. Goggles come in handy if your windscreen crystallizes or gets knocked out. Ignore local advice and that of other competitors on conditions and technique, unless you know the people concerned very well indeed, and can trust them; there are lots of comedians in rallying.

Earlier, I said something about competitive spirit, and finishing the rally. The question really amounts to how high you want to be in the class results. If you want to take care and treat the car with normal consideration, accept that you will be at the bottom. If you intend to have a go, come what may, you will need to think of all the individual fifths of a sec.

At the start of a test the clutch will have to go in with a bang, the engine turning at 3,000 r.p.m. or more. The gear changes will have to go straight through with the minimum of finesse. You will have to get into the mood from the very beginning,



"... others overshoot ..."



"... sighting lines ..."

About the most bashable component on many modern cars is the exhaust system, and even if it stays clear of rocks and ruts, the vibration of rally roads is usually enough to fatigue at least one supporting stay. Apart from the fire and fumes risks if you damage the system, there is the infuriating clanking of a wired-up pipe, and the annoyance of loud noises to other people who do not exactly eulogize motor rallying as it is. Talking of wire and clanking, avoid a lash-up attachment of the rally number plates. I favour something plain and substantial.

If the regulations permit, it is worth while to leave behind fancy hub caps, discs or nave plates; they will probably get lost or damaged, they all represent unsprung weight, most of them hinder rather than help brake cooling, and if you have to change a wheel they may get in the way.

Some cars have the kind of brake adjustment which is carried out through coinciding holes in wheel and drum; it is as well to see that the holes do coincide before you start.

Tyres will probably wear about four times as fast as usual, so you had better fit new ones. Part-worn covers will certainly be bald before you reach the final control, and if they are, you will certainly be trying to make up time on smooth wet roads—such is the perversity of things. I believe in taking along a couple of chocks and a jacking plate as well as a good, quick-acting jack.

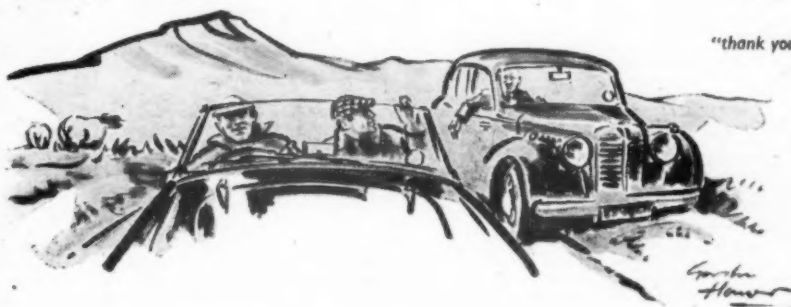
If you lose all your brake fluid

not work up to it, so when your entry has been accepted, try setting your teeth and snarling a bit each morning. Five minutes the first day, ten the next and so on until you are one big, determined snarl. After this, there is no question of being late at a control just because the competitors ahead dives into a ravine. That is his problem.

You can, of course, be polite and considerate if it costs nothing in time. Many other road users are most helpful in pulling in to the side to let you rush past. An alternative quiet and melodious horn is a good fitting in such cases, both to warn of the moment of passing and to give a couple of "thank you" toots.

So you see rally crews can be nice and quiet and considerate. In fact, they should be. It is just for the sport. So after you, George and Charlie—if you can force past me!

JACK.



"thank you"



THIS AUSTIN A95 has covered the 3,228 miles across Africa between Lourenco Marques (Mozambique) and Luanda (Portuguese West Africa) in 3 days, 11 hours and 45 minutes. It was driven by two directors of the Austin distributors in Mozambique. Previously the record time for the crossing stood at 6 days and 5 hours, and was held by a Ford V8

Commercial Petrol Up Again

A FURTHER $\frac{1}{4}$ d per gallon increase in the cost of commercial grade petrol was made by the oil companies last Friday. This is the second increase in less than a month, the previous one being on 15 July when all grades except super premium were then increased by $\frac{1}{4}$ d a gallon.

The new price of commercial grade petrol is 4s 3d. Other prices are unchanged at 4s 8 $\frac{1}{4}$ d for premium, and 4s 11 $\frac{1}{4}$ d for super premium. As usual, prices for all petrol grades are $\frac{1}{4}$ d higher in the outer zone, and 1d higher in the general zone.

Australian Controls Continue

MR. JOHN McEWEN, the Australian Minister of Trade, has announced that there will be no relaxations in import controls during the next four-month licensing period. The level of imports will be maintained at the current limit of £A640,000,000 for all goods.

Accidents—1957

LAST year the number of persons killed and injured on British roads was the highest total ever recorded, and the number of fatalities—5,550—was a new post-war maximum. Casualties increased by 5,898 over the 1956 total. The greatest individual increase in accidents occurred among motor cycle users.

During the year traffic was limited by four months of petrol rationing, but the number of vehicles licensed increased by 507,000, to a new record total of 7,427,000. The resident population of the country increased by some 200,000, to an estimated mid-year total of 50,057,000.

Output Up in Italy

VEHICLE production in Italy in the first six months of this year increased by 21.6 per cent, and exports were up by 48.8 per cent, compared with the first half of last year. Car production was increased by 24.4 per cent to 193,331, of which 48.8 per cent were exported.

Underpass to Start

OBJECTIONS, appeals and talks delayed the commencement of construction of an underpass at Hook Corner on the Kingston By-pass south-west of London. At last, however, the contract

has been let, and work is to start on it very soon. The present roundabout will be enlarged and will take the form of two bridges in its centre, under which will be excavated a through route for the By-pass traffic. There will be a pedestrian bridge over the By-pass to the east of the roundabout, and four slip roads will provide the link between the roundabout and the By-pass before it dives into the cutting.

The reason for the hold-up in the preparatory work for this important Underpass was a series of objections, ultimately overruled, from local people who stand to lose business as a result of the improved traffic flow which will result.

The scheme includes extension of the dual 24ft carriageways from the eastern end of the Underpass to Woodstock Lane, about three-quarters of a mile. Also, within the next 12 months work will start on another scheme which will extend the dual carriageways between Burlington Road and Kingston Vale, near the Wandsworth boundary, resulting in improvement of the By-pass over a total distance of about 6 $\frac{1}{2}$ miles.

Traffic on the Kingston By-pass averages 21,000 vehicles per day, rising to 3,000 vehicles per hour on Sundays and Bank Holidays. No completion dates have yet been given for either of these schemes.

Castrol R for 'Buses

LONDON TRANSPORT is to experiment with Castrol R, the lubricant well known for its use in racing engines, in the back axles of London 'buses. A 3 per cent saving in fuel oil is hoped to result. Castrol say that although suitable for the worm drive axles of 'buses Castrol R cannot be recommended for use in car rear axles.



SIR JOHN HUNT and his party have returned to London after their successful expedition to the Caucasus. The three Standard Vanguard estate cars which they used are seen here outside the Royal Geographical Society headquarters in London, the middle one bearing signs of the extensive damage it sustained when it "fell off a very bad road" near Prague

Shell Paint in Brussels

ONE of the problems in the construction and maintenance of the underground urban motorways recently opened in Brussels was the development of a surface dressing which would remain white, and would not retain exhaust and dust deposits. The paint used would need to have a high abrasion resistance and to be able to withstand frequent washing with cleaners containing alkali, which is harmful to conventional paints. Eventually the authorities selected an amine-cured paint based on Epikote resin, manufactured by Shell. It was applied to the tunnel walls by hand rollers, and dried by mobile infra-red heaters. Since the use of a durable surface dressing will be important in all underground road projects, it is good to know that a satisfactory solution has already been evolved and tested.



TUNNELS AND UNDERPASSES in Brussels owe their clean appearance and brightness to Shell's new amine paint, based on Epikote resin (see left)

Used Car Auction Prices

THE following is a selection of prices realized for used cars in a recent sale of Southern Counties Car Auctions, Ltd. In the column headed "Condition," A indicates very good, and B average; the first letter refers to the body and the second to the car's mechanical order.

Car	Date	Condition	Price £
Austin			
A.35	Jun. 57	A B	452½
A.40 Sports	May 53	A A	380
A.50	Jul. 56	A A	505
A.70	Jun. 51	B B	310
A.105	Jul. 56	A B	635
Ford			
Anglia I	Apr. 53	B B	210
Prefect II	Sep. 55	A A	390
Consul I	Jan. 53	A B	402½
Zephyr II	Aug. 56	A B	605
Hillman			
Minx	Mar. 57	A B	610
Husky	Sep. 56	A B	432½
Jaguar			
XK140	Apr. 56	A A	910
Mk. VIIM	Jan. 55	A B	665
Morris			
Minor Traveller	Feb. 54	A A	432½
Oxford	Jan. 55	A A	482½
Standard			
Eight	Apr. 54	A A	337½
Ten	Jun. 55	A A	392½
Vanguard II	Mar. 55	A B	455
Vauxhall			
Wyvern II	Jun. 56	A B	535
Velox II	Jun. 56	A B	540

More Volvos in June

ALTHOUGH total car sales in Sweden were down in June this year, compared with the same month last year, Volvo home sales showed an increase from 3,101 to 3,744. Ford sales were practically unchanged at 2,150, but General Motors products declined from 3,691 to 3,112. Total registrations fell from 17,444 in June, 1957, to 16,668, but the figure for the first half of the year (78,963) is well above the total of 72,888 for the first half of 1957.

Winter Sailings Cut

BRITISH RAILWAYS are to reduce their Channel Islands service from six to four sailings a week in each direction for the winter months. Outward sailings from Southampton will be on Monday and Wednesday nights, and from Weymouth on Tuesday and Friday nights. The Southampton to le Havre service is to be reduced from three to two sailings a week each way. The reductions will come into force on 3 November, until 14 March next year.

Appointment for Lord Monckton

VISCOUNT MONCKTON of Breckley has been appointed chairman of Iraq Petroleum and its associated companies, in succession to Admiral of the Fleet Sir John Henry Dacres Cunningham, who retired on 30 June.

Austerity Minx in Australia

PRICED at £64 less than the standard model, a new cheaper version of the Hillman Minx has been introduced in Australia. Selling for £A1,035 including sales tax, it costs £10 more than the B.M.C. Major and Lancer. The car has a floor-mounted gear change, and is sold with a minimum of chromium-plated mouldings; the radiator grille is enamelled and there is only one sun visor. The fascia panel is mounted centrally as on the Husky, and there is only one horn.

Our correspondent in Australia writes: "It is expected that if the hardening tendency of the Australian market continues, further price reductions and 'austerity' models of standard cars may be introduced by other manufacturers."

PARKING—FINAL REPORT

IN December 1956 the Committee set up by Mr. Watkinson (and headed by Mr. A. Samuels) to review the problems of car parking in Central London published an Interim Report. It contained full particulars—as requested by Mr. Watkinson—of how a parking meter experiment could be operated in London.

Now, the Committee has published its Final Report: it is brief, and does not add a great deal of further information to that revealed by the Interim Report, but here are some of its more important points.

Special provision of free kerbside parking space is to be provided for Embassies, Legations and Ministries, as a matter of diplomatic privilege, and as a mark of respect for Ministers.

A list has been prepared of streets and squares where it is proposed that long-term parking should be permitted and, presumably, encouraged. It covers 23 streets in the inner fringe area (N, N.W. and W.), and nine streets in the area immediately south of the River Thames, to account for some 1,250 cars. In making these recommendations the Committee state that they have not consulted with local authorities, nor have they in-

vestigated the possible reaction of residents on finding their house frontages being used as a free long-term car park. The Committee comment that people living on the fringe of the parking meter area cannot hope to avoid the consequences (of parking meters); but they add: "We are convinced that it is not a durable state of affairs, and that eventually accommodation off the streets must be found."

Some investigations have been carried out by the Committee into the origins of over 1,000 motorists who were summoned for obstruction or long-term parking in Mayfair during a short period of the summer. It was found that 60 per cent of them lived north of the River, and only 11 per cent of them had addresses outside the London area. In a sample of 1,500 who were prosecuted for parking in the City, about 60 per cent lived within a 10-mile radius of Aldwych, and the conclusion was that the majority of those who parked in the City and West End came from the north-west of London, within 7½ miles of the centre.

Thus the Committee felt that there would be little object in recommending

parking sites which were some 4 or 5 miles out, as few motorists would be prepared to drive for two or three miles and then change to public transport. Also, the streets to be used as parking places would have to be within easy reach of public transport services, as motorists would not be willing to park their cars in areas which involved a long walk to bus or tube services; the streets chosen would have to be suitable for parking from a traffic point of view.

Some comments are also given in the Report on parking off the highway, of which the most important paragraph reads: "We note that Section 25 of the Road Traffic Act (1956) enables the Minister of Works to charge for parking in the Royal Parks. We feel certain there will be an additional demand for long-term parking accommodation in the Royal Parks as soon as nearby parking meter schemes are in operation and that as underground garages are unlikely to have been provided by that time, it will become essential for the Minister of Works to exercise this power. We, therefore, recommend that he should make preparations accordingly now."

Disconnected Jottings

BY THE SCRIBE
Barry Appleby Drawing

The Right to Choke?

IN a bulletin, the British Road Federation speaks thus: "The Minister of Transport has banned vehicles carrying abnormal loads from using the Preston By-Pass—the first length of motorway in the country—when it opens later in the year. This is an astonishing decision."

The Preston By-Pass will have dual two-lane carriageways. It would thus be choked by a very wide load. Why, then, is the decision of the Minister "astonishing"? The tradition that the highway is a public facility that can be used by anybody for anything is not a good one. The purpose of trunk roads is to provide smooth flow for the country's industry and its heavy haulage lorries, for the citizens and their cars. The "indivisible load," I have always thought, is something of a racket. By assembling something enormous at a factory, instead of on site, money may be saved; but this means the presence of an enormous outfit on the roads, taking up much work and time by the public police. Is their time fully charged to the job, or do the "abnormal load" people get this at public expense? Is there any scheme of compensation for other firms whose goods have been held up in traffic jams and not delivered on time, or for business motorists?

The worst example I have seen was a long traffic block created by a large ship's propeller, on its way from a port of Merseyside to the port of Falmouth—by road!

Inflating Road Costs

ANOTHER aspect of heavy indivisible loads is the cost of road building. It needs little thought to realize that a bridge can be put across a river for little money, if it is to carry cars; for a reasonable sum if trunk haulage lorries and double-decked buses are to use it; and for an astronomical sum if 75-100-ton loads are envisaged. Roads with weak subsoil invite the same increased costs. As to exports, it may cheapen a big transformer, for instance, to assemble it at works, but it is doubtful whether such exports justify economically the addition of enormous extra cost to the modern roads system which this country must have some day.

Kindness Miscarried

NOTICES in the New Forest, pleading with motorists not to attract the wild ponies to the roads by feeding them, must have proved in-

effective, for now I see "Feeding the animals prohibited. Penalty £5."

The ponies stray out in the road to attract the attention of passing motorists; they even indulge in seemingly deliberate attempts at obstruction. There is something very sad about this unhappy consequence of the British town-dweller's love of animals. It would be a great loss if the herds of half-wild ponies disappeared from the New Forest and the moors of the West.

I suppose the cost of fencing the main roads would be too great; it takes a very good fence, and a marvellous hedge, to foil a moorland pony. I have seen Dartmoor ponies breaking open a gate by backing against it stern-first. They prefer other people's vegetables to their own moor and, it seems, those of the New Forest prefer chocolate to grass.

Feeding ponies at the wayside, leaving litter, leaving gates open, and failing to recognize long grass as a valuable crop, are not sins of the town-dwellers, but arise from ignorance, and so education could do good.



A fan is needed

Reserves

A MISSING fan belt last weekend taught me that even in cool Britain, a fan is needed for a good period of total mileage. It is especially wanted for ticking-over at long halts, and for climbing long hills. In undulating country, I found that even short hills would induce a peevish whiffle from the radiator overflow and steam pipe. But the coast in neutral down the other side soon brought the temperature down. The engine was switched off at all long halts.

In fact the drill was exactly like that for economy driving in rationing periods. In the one case, one hasn't the petrol to burn. In the other, one mustn't burn too much petrol or the radiator will boil. My m.p.g. savings on the weekend paid for the new fan belt.

What a splendid reserve a good heavy-duty, two-year guaranteed battery has! With the output of modern dynamos, normally one does not need

the reserve; but when it is needed, it is very seriously wanted indeed. I do not grudge the extra weight and cost. With the fan belt broken the dynamo was out of action all the weekend. But the self-starter remained usable.

More serious was the fact that the water pump, belt driven, was also out of action, and acting as a serious impediment to what might otherwise have been a good water-circulation on the old thermo-syphon principle.

A Wheel, More or Less

IT is the fate and to some extent the duty of every citizen on occasions to listen patiently to other people's moans. One lends a few minutes of one's time as a sort of public-spirited safety valve, to prevent the possibility of an explosion which might involve several more members of the community.

The Scribe is frequently used as a safety valve by telephone and letter, and he is particularly well acquainted with the detailed iniquities of the police, civil servants and other motorists. The importance of each incident brought to his attention by "victims" seems to vary in direct ratio to elapsed time; each day that passes brings about some cooling down.

One Wheel Too Few

ONE of these moans was about officialdom, and was rather interesting. It came from the quite experienced driver of a Bond Minicar who now wishes to drive an Austin A.35 as well. Alas, his licence, he has been told, will not permit this. It seems that he may purchase a T.T. Norton tomorrow and, although he has never ridden a motor-bike—nor does he feel capable of controlling any vehicle on two wheels—legally he may take it up the Great North Road at 100 m.p.h. On the other hand he is sure that he would have no difficulty at all in driving the A.35 safely and competently, without further instruction—but illegally.

He seems to have passed a driving test on his Bond Minicar, which entitles him to a "G" licence only, covering motor-cycles and three-wheelers not equipped with means for reversing, but excluding all other vehicles.

I must agree wholeheartedly that the anomaly of two, three and four-wheel licences and driving tests should be sorted out and the regulations revised. In the meantime, the Bond driver, having dissipated a little of his irritation, may now be better able to contain himself without explosion for the month or so while officialdom sorts out documents, fixes the date of a test and, perhaps, even passes him first time.

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At speed on A11, north of Newmarket

Aston ISHING Martin

Reflecting the Particular Tastes and Requirements of a Skilled Engineer

BACK at the turn of the century any really competent engineer, with quite limited resources and facilities, could set about the building of his ideal motor car from scratch, with some confidence that his creation might prove better than its contemporaries. Nowadays the time, expense and equipment involved in such an undertaking would be somewhat prohibitive; moreover, professional design is generally so informed and excellent that the task loses much point for the amateur.

Nevertheless, there is a touch of Da Vinci in each of us, and enormous satisfaction is to be gained from canalizing a flood of brainwaves. In the current motoring world, the answer is to start with the completed article and to refashion it in accordance with one's personal ideals, foibles and pet theories—sometimes, mind you, with the most devastating results to both its mechanics and aesthetics.

A few months ago (*The Autocar*, 7 March) we described a test of a blown Morris 1000, the property of Mr. David Griffiths-Hughes. This was an attractive but comparatively uncomplicated car, intended primarily for supercharged shopping. A far more accomplished and involved task was the transformation of Aston Martin YPA 1 into its present remarkable guise—a progressive metamorphosis which, it seems, will continue to occupy Griffiths-Hughes until the graph of improvement plotted against relative thought and labour levels off. Then, I suppose, he will look for something else to play with.

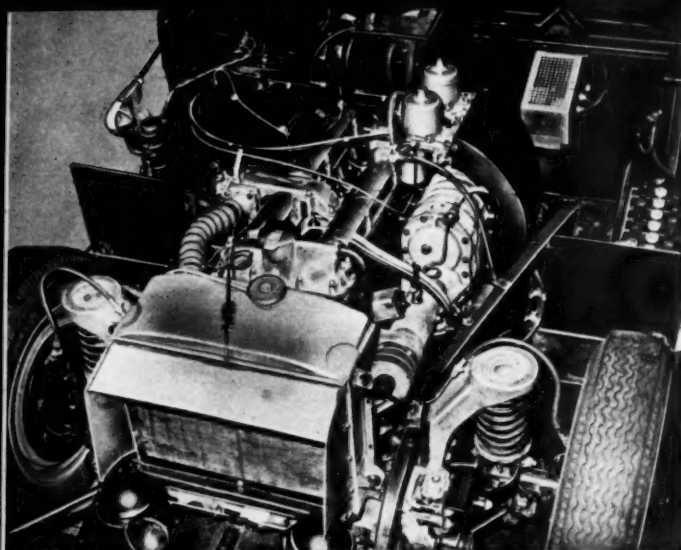
This story starts back in September, 1955, when YPA 1 was delivered new; a perfectly standard DB2/4 Mk. II, it followed a succession of fast Continentals, such as a 2.6 Alfa and a 57SC Bugatti, into the Griffiths-Hughes stables. Even then, it had the sort of performance, handling qualities and appearance which some might set as an ultimate standard. Not so this owner: his experiments began as soon as the car was fully run in, and they were not confined to the power unit alone.

To begin with, he played with such details as needles for the

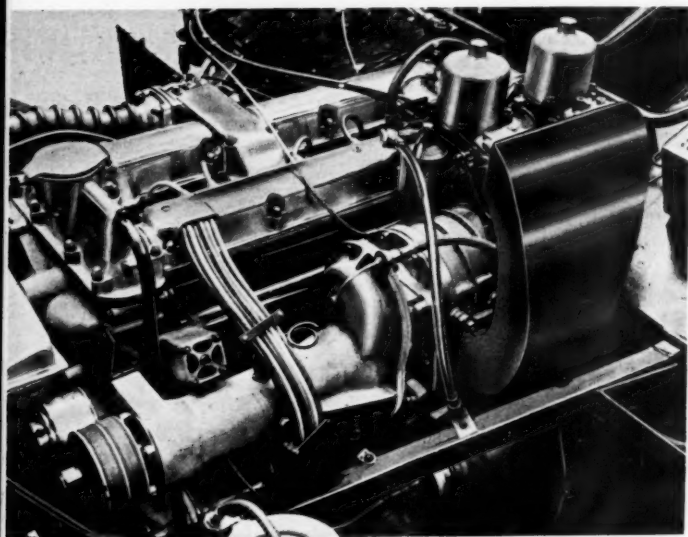


David Griffiths-Hughes beside his remarkable re-creation: the radiator grille is special, but there are no distracting badges, spot lamps, wing mirrors or power bulges to spoil the form

Aston ISHING



Above: With the Aston Martin's one-piece bonnet removed, brightly burnished elements of power are disclosed in an exceptionally neat and effective installation. Below: Two S.U. HD8 carburettors with massive dashpot "bottles" feed a Marshall-Nordec K200 Roots-type supercharger, driven by twin V-belts from the crankshaft. Left of the bunched H.T. leads is one of two ex-Bugatti pressure relief valves



two S.U. carburettors. With its standard SV needles, the car would average about 19 m.p.g.; by fitting WO2 needles, he claims there was a 10 per cent step-up in performance, together with an improvement in fuel consumption to 23.4 m.p.g., measured over several thousand miles. Other Mk. II owners might make a note of this. Next, a 3S head with larger valves was fitted, together with 3S camshafts to give more enterprising valve timing, and Rob Walker's Pippbrook Garage, which does a share of the work on the car, also equipped it with dual exhausts.

In February of '57, when the car had covered nearly 25,000 miles, the decision was taken to fit a supercharger, and the accompanying pictures will show that this was done in no amateurish or half-hearted fashion. The instrument chosen was a Marshall-Nordec K200, arranged to run at engine speed and to pump up to a maximum of about 6 p.s.i. A reduction in the blower pulley diameter has since speeded this up and—when all is 100 per cent—the maximum pressure recorded will reach about 10 p.s.i.

The blower is mounted well back along the near side of the engine, its mainshaft extended forward and supported in a long aluminium housing to carry a double pulley, driven through $\frac{1}{2}$ in V-belts from another on the forward end of the crankshaft. There is an adjustable, flat jockey sprocket (contacting the outside of the belt) with which to maintain tension.

Feeding the blower via a fabricated steel trunking, curved and tapered, are two frighteningly greedy-looking S.U. HD8 horizontal carburettors, with flared copper extensions on their intakes. Their dashpot pistons have been bored to take $\frac{1}{16}$ in needles, and the dampers are normally filled with S.A.E.30 engine oil—not thinner. Has he, the perfectionist, ever tried constant-viscosity silicone-base oil in the dashpots, to ensure that the damping characteristics remain more or less constant whatever the under-bonnet temperatures? Not yet. How clever we were (in our opinion) to think of that one!

Fuel supply from tank to carburettors is the responsibility of a high-pressure electric pump tucked away in the space frame beneath the passenger's door. The blower outlet feeds into a tubular, six-port induction pipe of heavy gauge copper, of which Griffiths-Hughes is justifiably very proud; and excess pressure which can be caused by blow-back from a cylinder is dealt with by two large poppet-type relief valves which once served a 4.9 Bugatti.

Although at first glance this assembly is somewhat awesome it is, in fact, quite straightforward and completely practical; but the geometric problems of its installation in the limited space between engine, frame members and bonnet must have entailed some intensive cerebration. Moreover, the standards of workmanship and finish wherever one looks are fully up to those of the rest of the car. In fact, Griffiths-Hughes' quality engineering background, which commenced with an apprenticeship with Rolls-Royce, is everywhere in evidence.

To meet the increased bearing loads, the relief oil pressure for the lubrication system was raised to 75 p.s.i. by packing the valve spring with metal discs, and an extra deep sump with increased capacity is fitted. The standard compression ratio of 8.2 to 1 has been virtually unaltered, but the head joint is made now with a laminated copper gasket having a steel top sheet and wrap-over, in place of the normal copper article. From choice or necessity, various major components of the engine have been replaced from time to time. Naturally, you cannot store such powerful champagne in a standard bottle without blowing the cork occasionally.

For instance, it now has a 3S-type crankshaft (necessity) in a Mk. III stiffened crankcase (choice), and Mk. III connecting rods (very choice). At the moment of writing, the standard touring camshafts have been restored to favour, since they give better low-speed tractability with very little sacrifice of power higher in the range; but by the time you read this, it may be all different again—dismantling the engine completely has become a task from which Griffiths-Hughes never flinches. Indeed if, after a few thousand miles, nothing has broken, he has to look inside and find out why. So far, the engine has not been coupled to a dynamometer, so that the true power output is not known, but the performance figures we recorded on the road give a substantial clue to what has been achieved.

Incidentally, one of the popular half-truths about superchargers is that much of the extra power they foster is absorbed in driving them. Now, a normally-aspirated engine has to exert itself considerably to pump in combustible mixture during each induction stroke, and when a blower—which, after all, is just an air-pump—is fitted, the engine is relieved of this duty. This rebate is often overlooked.

Griffiths-Hughes has notebooks full of facts and figures about the gradual development of his car to its present state, and the comments above cover but a fraction of the work and experiment which lie behind the project.

Externally, the deep-green Aston is distinguished by a one-off grille which has a touch of both the 3S and the Mk. III about it, so that it still carries the unmistakable family likeness. If you look closely, you will notice Borrani light alloy wheels with extra wide rims (ex-Connaught sale) wearing, at the front, Avon Turbospeeds and, at the rear, Pirelli Stelvio Corsa covers. The rear tyres are oversize, of 6.50 in section, and Avons do not manufacture that dimension. Inside the cabin, the rather mediocre front seat squabs of this model have been greatly improved by the addition of some extra padding to support the waist against side thrust, for better relaxation during the high-speed slalom.

Martin

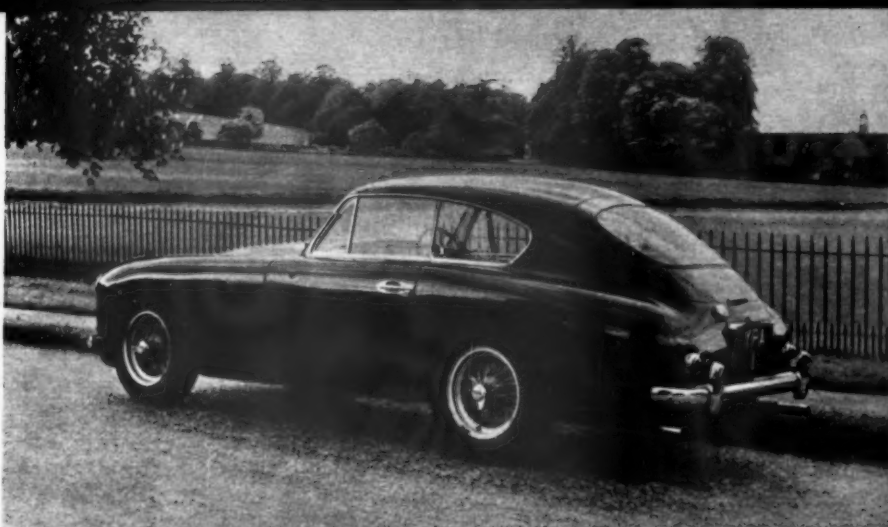
Those with private or proprietary tune-up sets on their cars know of the fun to be had when a similar car in standard form gives chase. Unfortunately, in the Aston Martin category such encounters are all too rare—and so often the victim appears only where, because of traffic conditions, the form is "no dice." Nevertheless, when the odd one does appear, it is in for a surprise.

Emphasizing that there was no thought of competition work in mind when YPA 1 *modifié* was conceived, Griffiths-Hughes makes no apologies for the strictly touring clutch which, nevertheless, resists everything except brutish provocation. It is a little heavy to free, having altered leverage to halve pedal travel, but not fierce like the multi-plate coupling fitted to the type DB3S. Apart from having a blower pressure gauge, a long hand-throttle protruding from beneath the fascia above the driver's right knee, and thick pads on brake and clutch pedals to allow a driver of quite average stature to reach them when driving in the currently fashionable arms-outstretched position, the controls of YPA 1 are normal.

This must be one of the tamest hot-roads in captivity. It starts perfectly easily—but at once arouses suspicions by some intriguing blower gear whine and by a little extra healthiness of its deep-throated exhaust note—enough to distract any teenager's attention from nuclear physics or washboard jazz. After prolonged potter in built-up areas, a fouled plug may occasionally reduce the sextet to a quintet, but generally the low-speed tractability is exemplary. When we tested the car, it was running with a fixed ignition setting, the centrifugal weights in the distributor having been locked up; and we fed the S.U.s with normal premium fuel—the owner's preference being for alcohol-base Cleveland Discol.

Supposing that you trickle YPA 1 past a de-restriction sign into open country at 30 m.p.h. in second; about four and a half seconds later you can have doubled your speed without changing gear, and after an upward change into third, trebled it after a further eight seconds or less. Moreover, within 20 seconds of saying farewell to your friends, you can be increasing your distance from their house at the rate of 100 m.p.h.—always supposing, of course, that you have first warmed the engine, and that your friends live in that kind of a road.

These examples should show how really special YPA 1 is; its accelerative power exceeds that of any production car which *The Autocar* has yet subjected to a full Road Test. Its maximum speed is, by comparison, unimportant, and Griffiths-



Lines of force—perhaps the best view of the DB2-4 Aston Martin. This one has wheels by Borrani of Italy, and twin exhausts with outswep silencers

Hughes has not bothered to check it. The portents are that, wearing its present axle ratio of 3.77 to 1, about 130 m.p.h. could be reached quite readily—but that sort of speed has no practical value in everyday motoring. It does mean, however, that on continental *autobahnen* and the like one could cruise for hours at 110 or more, without hankering for an overdrive.

In the accompanying performance table, the figures quoted follow our usual practice of representing the means of several runs, but it seems worth remarking that the fastest time recorded over the standing quarter-mile was 15.1sec. The astonishing regularity of the figures quoted for the intermediate ranges shows clearly the benefits of a supercharger, whereby the hump in the engine torque curve must be reduced to a practically straight line throughout the useful range. It was found, incidentally, that a genuine 100 m.p.h. could be reached in third gear without exceeding the revolution limit, but in normal practice more was to be gained by an earlier upward change.

Although this exhilarating side of the car, and the extraordinarily easy manner in which it performs, are enormously impressive, it is perhaps the Jekyll and Hyde combination of racing urge and domestic docility which makes it such an enviable carriage. Moreover, the feel of this particular Aston gives a true impression that even its chassis details constantly receive that attention which makes all the difference between the new car straight from the showroom and the fully run-in vehicle maintained by a conscientious and knowledgeable owner.

Here is champagne motoring—high-pressure stuff, sparkling, bubbling, and occasionally overflowing with vitality, and in striking contrast with the tap-water humdrum of our normally aspirated 60 b.h.p. locomotion; and if the cork's grip is a little tenuous at times, or the bottle occasionally cracks, it is terrific fun while it lasts.

R. B.

PERFORMANCE TABLE (Contemporary Cars Compared)

Acceleration from rest through gears to:

M.P.H.

Supercharged Aston Martin

Aston Martin DB2-4
(The Autocar, 3 Sept. 1954)

Mercedes-Benz 300SL
(The Autocar, 25 March 1955)

sec.

sec.

sec.

50

6.6

8.1

7.0

60

8.6

11.1

8.8

70

10.3

14.8

11.0

80

12.2

18.6

13.8

90

15.6

23.7

16.1

100

19.2

31.7

21.0

110

24.4

—

30.9

Standing quarter mile

15.5

17.9

16.1

Speed range:

M.P.H.

Top

Third

Second

Top

Third

Second

Top

Third

Second

20-40

7.0

4.9

2.9

8.0

6.0

4.1

7.8

5.5

3.7

30-50

6.1

4.3

2.9

7.8

6.2

4.2

7.9

5.4

3.4

40-60

5.8

4.3

3.2

7.9

5.8

4.2

7.8

5.0

4.1

50-70

5.5

4.5

—

8.0

6.0

—

7.5

5.0

4.0

60-80

5.6

5.1

—

9.9

—

—

8.0

5.1

—

70-90

6.4

5.3

—

11.0

—

—

—

—

—

80-100

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12.8

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8.2

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90-110

9.4

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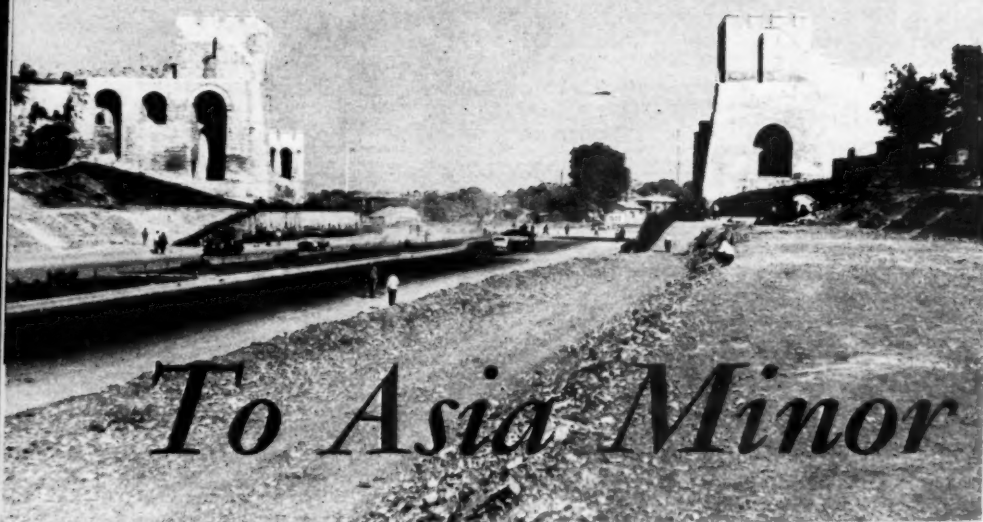
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Gateway to the East—a new double-track, six-lane highway has been driven through the ancient walls of Istanbul

To Asia Minor . . .

By Belgrade and Salonika to Istanbul—and Home Again

THE GIRL with the blue eye-shadow looked up languidly from behind the counter of the travel agency in London. With a rather pitying smile she said, "Really, we don't advise it. It's not considered practical to reach Istanbul by road. Let me book you a nice air passage—so comfortable."

"But surely there is a road of some sort all the way," I replied. "Vehicles must move from town to town, so why not mine?" "I doubt if you'll make it," she said, and we parted politely.

* * *

AHEAD of us the road deteriorated. I changed smartly from top to second and we were in the water, but not for long, the river was shallow and the bottom firm. The Gorge of Grdelica has the reputation of being a potential stopper, and I can well believe that under rainy, wintry conditions it could be. However, we were fortunate in having a dry spring this year, and all water levels along this section were well below average.

Since leaving the comforts of the Hotel Majestic, Belgrade, at a bright and early hour that morning, we had made surprisingly good progress, covering 70 miles in the first two hours, with the Minor purring along. We had set out with a full tank and two cans of Yugoslavia's best petrol, but even this

necessitated a retarded spark. There was a little pinking even on this setting, but not much care was needed to prevent it, and I began to think that we should reach Skopje, our scheduled stop for the night, almost too early.

However, my optimism was hardly justified, as after Kragujevac the road reverted to what one must regard as normal in most parts of the Balkans. Our cruising speed dropped to a second and third gear crawl as we avoided pot-hole after pot-hole, or crept over miles of chassis-twisting corrugations. To add to the fun in these parts, the script altered from that used in the West to the Cyrillic and there we were back in nursery days—unable to read!

We pressed steadily on, however, thankful for our oil bath air-cleaner which kept the arid yellow dust out of the engine, though not from ourselves. Fortunately the extreme lack of traffic in these parts lessens the dust nuisance, and other vehicles were few and far between.

In Nis we were amused to see a well-laden bus of the type and colour so familiar to Londoners under normal conditions, but at that time such a *rara avis* due to the strike, then in its fifth week. Nis was a better spot than we expected, with a small hotel where we could have stayed, but we contented ourselves with refreshment on the pavement, the liquid being accompanied by some of the sweet, sticky cakes so popular in that countryside.

Left: Preparations for road repair on the road to the Oracle at Delphi. Right: The castle of Rumeli Hisar, on the shores of the Bosphorus a few miles north of Istanbul, was built in three months by 2,000 men—500 years ago



Once through the Gorge of Grdelica, which made up in scenery what it lacked in road, the going became better, and we pulled into Skopje as the lights were going on, one of the most prominent being the hammer and sickle in blood-red neon lighting over the Communist Party's headquarters. This was around 7.30 p.m., and it was odd to find it dark at that hour in early June, but we had come some way east and south, so it was not altogether unexpected.

The less said about Skopje the better. All the old buildings have gone, probably quite rightly, as I doubt if they were more than hovels, but the modern blocks which replace them are drab, dreary and already in need of the maintenance they are not receiving. The hotel did boast a bathroom, but the plaster was falling off the walls; even the drain of the hand basin leaked copiously on the floor and the car park was half mud, although it had not rained for weeks. The Yugoslavs have my undying admiration as a brave race, poised precariously between the contrasting elements of extreme Communism and the West. Their coast line is truly magnificent, the country folk delightful, but their urbanism leaves me completely cold.

Next morning we were eager to push on south, with Greece within reach, and it was indeed a pleasure to be welcomed over the frontier on to a wide, smooth macadam highway. Pausing only to admire the Evzone guard perched high above the countryside in a very special sentry-box, we sped along past gaily decorated farm carts and were soon in Salonika, where we dined that night on the pavement outside the Hotel Mediter-



The Blue Mosque in Istanbul

Channel between Europe and Asia—the Bosphorus (below)

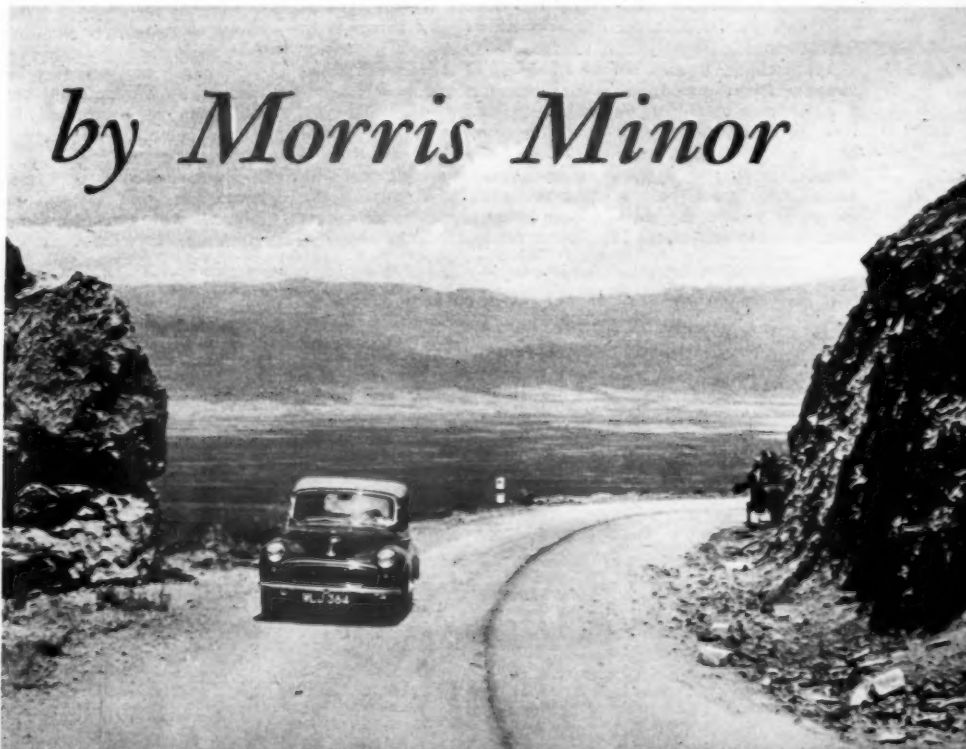
anean, with only the width of the road between us and the sea. Greece is in every way a beautiful country, and has the added attraction of being as cheap for the traveller as Spain was ten years ago.

I should have liked to linger in Salonika, with its water front, perfect weather and many interesting historical connections. In these days of mass production it was refreshing to wander in and out of shops, and to see brass and copper ware actually being beaten out by craftsmen on the premises for all to observe.

However, two nights were all we could spare, and we were soon off again due east towards Turkey, along the northern shore of the Aegean Sea. Greek roads vary, and the one we took was in places rough by English standards. Along this stretch we lost the tick-over, and the engine stalled below about 1,000 r.p.m. Fortunately the trouble was obvious, as the air cleaner had shed one of the bolts securing it to the carburettor. Being part of the engine, this had a Unified thread, and I was carrying only B.S.F. bolts as spares, these being used on the chassis. However, the second garage we tried produced the very thing. I had to remove the float chamber to fit it, but this



... by Morris Minor



The Minor pauses in the Pass of Thermopylae, where in 480 B.C. Leonidas and 300 Spartans held the Persian army at bay



The ancient walls of Salonika, Greece

To Asia Minor . . .

did not take long, and as that also proved to be loose, perhaps it was just as well.

In Kavalla we paused for photography, and while lunching off the most perfect shrimps straight from the sea, we met one of the "Old Contemptibles." Just how many wars he had fought in was obscure, especially as he spoke but little English and we no Greek, but there wasn't the slightest doubt that he had been on our side in all his campaigns. Whatever may be the prevailing tone of high-level diplomatic relations today, there is no doubt whatever of the cordiality of the average Greek towards this country, and the wine flowed back and forth between us.

After spending the night at Alexandroupolis we set out on the last stage towards our goal, Istanbul, which we aimed to reach that night. All reports indicated that the stretch up to the Turkish frontier was bad, and the surface over the latter part certainly bore this out. This is understandable enough, as a new bridge is being built over the river Tunca Nehri between Greece and Turkey; this will shorten the distance by 110 kilometres, making the sweep north to cross the river at Edirne unnecessary.

Approaching Orestias, we were held up by a semi-uniformed motor cyclist who we found was an official of the local automobile-club-cum-tourist organization. At night he was, apparently, engaged in smuggling coffee across the river into Turkey, where coffee is illegal. He offered us Turkish lira and other currencies at exceptional rates, so we did a small but favourable deal with him. Coffee is not the only thing being smuggled into Turkey, as earlier in the day we had been overtaken by a police car with siren in full blast. The crew stopped a lorry ahead of

us, and some ten men were forcibly removed from under a tarpaulin. Somehow they were squeezed into the police car and taken back to the local police station.

What with these incidents and the constant dodging of toroises which cross the road in these parts, we had an entertaining morning, but I was not too happy about how the afternoon would turn out. Shortly before leaving England I had discovered that Turkey insists on all vehicles using her roads being insured by Turkish companies, the Green Card being insufficient. All I had time to do was to ascertain the name of a Turkish insurance agent in Edirne, about five miles the wrong side of the frontier, and I had visions of a long walk in the full heat of the sun.

I was, therefore, considerably alarmed on approaching the Turkish customs to see about 20 cars parked, most of them obviously having been there many days. I had a Green Card, my London insurers had agreed to extend the cover to include Turkey, but was it going to be good enough?

We entered the Customs shed with our best smiles, shook hands and exchanged cigarettes all round. No one could have cared less whether the car was insured or not, and the subject was not even mentioned. Later it transpired that the cars which had been refused admission had no carnets.

And so, some four hours later, on a surprisingly cold evening, we entered Istanbul, if not in triumph, at least with feelings of considerable pleasure. The approach along a six-lane double-track highway carved through the old city walls is spectacular, and a real contrast with the hot, dusty gravel tracks on many parts of this delightful journey.

For four nights we wallowed in the luxury of this near-Arabian nights city of mosques, on the shores of the Bosphorus. Later we explored the narrow waterway between Europe and Asia, only to find it heavily mined at the entrance to the Black Sea. Our presence in those parts was clearly unwelcome, so concealing our cameras, we turned round and crossed over on the ferry into Asia Minor. Ankara beckoned on the signposts, but it would have been a full day's journey.

All too soon we had to retrace our steps to Salonika and from thence turned south over the Pass of Thermopylae, skirting Mount Parnassos, the traditional home of the gods, snow capped in all its splendour. After a brief visit to Delphi to consult the oracle, we spent three days in Athens before shipping the car and ourselves to Bari.

From there we motored northwards along Italy's inadequate road system, almost as congested as our own. We looked in at Monza to watch the practice for the cup of two worlds, and then over the snows of the Grand St. Bernard and home.

Throughout the whole 4,800 miles, which were covered in a month, the Minor behaved magnificently. A few items, chiefly on the body, worked loose and the compression ratio of 8.3 to 1 was far too high for the indifferent fuel of Greece and Turkey. However, these were small points, and the only real attention I gave the car was routine greasing and topping up the battery, the latter being necessary every third day. Tribute must be paid to the Dunlop Gold Seal tyres; we had no punctures and added no air to them, whereas when I have been in the Balkans before with bigger cars, I have suffered repeatedly with punctures.

This satisfactory performance serves to emphasize that the journey is one that can be undertaken by any competent motorist with a reliable car, and it is hard to imagine a more interesting trip.

MICHAEL COLLIER.

Left: Language problem—a Greek road sign on the north shore of the Aegean. Right: Beauty without words—the Acropolis, and the Parthenon





A strong surface-sitting turntable for cars. Right: Remington shaver, with its mains and battery flexes, and its neat clip-on socket for the car fascia or steering column

Accessories

Auto-home Razor

A NEW Auto-home variant of their model 457 electric shaver is introduced by Remington Rand, Ltd., Electric Shaver Division, 26-40, Kensington High Street, London, W.8. It has a two-way voltage control switch enabling it to be run off 200-240 volts (AC or DC), or 12-14 volts for use off a car battery.

A bracket and plug, with separate lead for use in the car, are included in the kit. On the razor itself there are four cutting foils, with three thin rollers to prevent rubbing on the skin when the razor is moved across the face while shaving.

Tried by the most wiry-bearded member of *The Autocar* staff, the razor was found to give a good shave, and its action was smooth, but the procedure was not very rapid.

Running off a 12-volt car battery, it was not possible to detect any reduction in the efficiency or speed of working of the razor, nor did it run faster when the car engine was charging the battery. Current consumption when running off the 12-volt battery was only a mild load which the dynamo would quickly replace.

Both the case and the shaver are extremely well made from quality materials, and a clip for the mains lead, and a small cleaning brush are included. The edging of the case is rolled gold and it is covered in a material of suede finish. The interior is lined, and shaped to the shaver; it would protect against mishap when travelling.

The 12-14-volt range of the Auto-home is far more useful than the 120-volt alternative provided on many other electric razors. It will be particularly welcomed by men who go camping and are accustomed to electric shaving; they know well the misery of returning to blade shaving in the open air. The price is £11 9s 2d.

Turntable

AN unusually simple but strong car turntable, intended principally for small repair garages and workshops but also suitable for the home garage, has been introduced by Oscar Chess, Ltd., The Motor House, Port Talbot, South Wales. It requires level ground; but although a concrete standing is desirable, it is not essential. The turntable is of steel, works on ball bearings, and has

grease-packed, sealed bearings. It costs £79 for cars with wheelbases up to 9ft, £99 for 11ft wheelbases. There is also a model which has a circular table, for flush fitting in floors, and this is £40 extra. The turntables are well made.

VW Battery

A DAGENITE battery small enough for fitting in the Volkswagen is announced by Holsun Batteries, Ltd., 137, Victoria Street, London, S.W.1. It is 8½in long, 6½in wide, 8½in high, and weighs 35lb. The capacity of this Dagenite 3GXL13-AZ model is 85 ampere-hours, and it costs £6 19s 6d.

Tail Grid

TAIL luggage grids for sports two-seaters, and saloons having a "quarterdeck", are introduced by Motor Glaziers, Ltd., Crown Works, Bissell Street, Birmingham, 5.

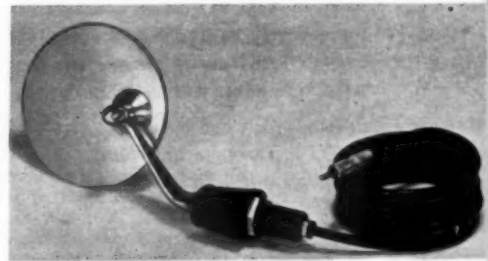
The tubes are particularly strong, being ½in-16 gauge steel, and the welds seem good. The chromium-plating appears thick and smooth, and it has taken well at the welds, always a weak point of plating. The rack stands, via welded lugs, on wide, curved strips of plated steel. A number of small bolts, having large washers and locknuts, secure these straps to panelling. The size is near 3ft by 1ft 6in, varying slightly with models, and the price is £7 7s for any rack. Painted versions are available; and special racks can be made. The existing range is stated to be:—

Ford Anglia, Prefect, Consul 1 and 2, Zephyr 1 and 6, Zodiac M11, Hillman Californian 1955-6, Minx, M.G. TF, A and Magnette, Morris Minor 1,000, Rover 90, Standard coupé, Sunbeam Rapier, Triumph TR2, Wolseley 4-40.

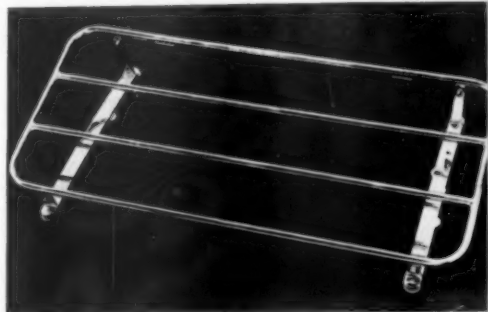
The racks are strong, and appear well-made and finished. The firm, though new in this field, is well established in metal working.

Aerial Mirror

AN ingenious combination of wing mirror and car radio aerial is put on the market by Delta-Swift (Motor Accessories), Ltd., Sheffield. Outwardly the only difference between this and the usual kind of mirror is the presence of



Insulated base collar and coaxial cable of the combined mirror and car radio aerial. Below: A strong tail luggage grid



an insulating base beneath the chromium-plated arm upon which the 4in convex mirror is mounted. Fitting is by the usual single hole in the wing. To the base which protrudes beneath the wing, however, is connected a coaxial cable, some 6ft 6in long, which has at its tip the usual plug for connection to a car radio. Although such a mirror will not normally be set at the height reached by a whip-type aerial, it has ample surface area for the reception of good signals.

On test it was mounted on the wing of a car already equipped with a good quality whip aerial, and arranged so that the input from either aerial could be fed to the set in the car at will. It was not possible to distinguish between them as to signal strength in most conditions; in town driving it was felt that the mirror aerial was a little more sensitive to interference, but less so to the fading such as is often experienced near large, steel-framed buildings and beneath bridges. The differences were so small, however, as to be imperceptible except in the special conditions of test. The mirror-aerial sells at £2 17s 6d.



Map by courtesy of Hallways, Bern

This is the sixth Alpine Pass to be dealt with in this series of articles. A book by the same author, describing 50 Alpine roads, "The Great Motor Highways of the Alps," is published by Robert Hale.

6

THE Dolomite area of the Alps, an "island" separated from the main chain to its north by the Val Pusteria (Pustertal) corridor, is about 30 miles square and entirely Italian. Through it, as a rough north-east to south-west diagonal, runs the great *Strada di Dolomiti*, three linked passes from whose main artery radiate half a dozen subsidiaries, penetrating nearly all the fantastic scenery of the famous Dolomite groups.

Coming from the north, either over the Brenner to its west or the Grossglockner road to its east, the driver bound for the Dolomite area turns south at Dobbiaco in the Pustertal, to dive through a remarkable gateway in the hills on its way to Cortina. Ten miles along this deep cleft at Carbonin (Schludersbach, 4,730ft), you have the option of alternative routes; you can continue by the viewless valley road or, bearing to the left over the first of the three components of the Dolomite road, climb steadily over the mild Tre Croci pass.

It would be a pity to miss the mountain road if only because it leads in three miles to the pretty lake-resort of Misurina (5,760ft), with wonderful glimpses of the remarkable Dolomite peaks nearby. The road then swings up through a pine forest to the Tre Croci summit (5,932ft) under the tremendous precipices of Monte Cristallo. A gentle, winding descent then brings you down to Cortina d'Ampezzo (3,983ft), a truly lovely holiday centre, elevated to world fame by the Winter Olympic Games of 1955-6.

The great road through the heart of the Dolomites now climbs southwards by long, easy hairpins through the pines and then straight up a long re-entrant under the huge cliffs of the 10,500ft

Tofana to the Falzarego Pass (6,913ft). The descent of the much steeper southern flank to Andraz is a glorious piece of modern engineering, wide beautifully graded hairpin turns and even a spiral tunnel being called in to solve the difficulties.

At Andraz (4,635ft) the road enters the long valley of the Cordevole and contours high on its slope to Pieve, where there is a famous view back to the magnificent Civetta (10,565ft), perhaps the finest single wall in the Dolomites. In another four miles you come to Arabba (5,255ft), where the Campolungo Pass goes off northwards to Corvara, and the long ascent to the Pordoi Saddle (7,346ft), the third component of the Dolomite Road, begins.

Five miles of looped hairpins, tracing a bewildering pattern across a broad, turf-breast of the hills, bring you to the cluster of hotels and other buildings in the grassy saddle at the foot of the Sella Group's enormous ochre-coloured cliffs. The road then dips through a narrow neck, and a completely new prospect opens up southwards over the lovely vale of the Avisio and its containing peaks. The descent, by long dog-legs, reaching out at first over bare slopes and later through pinewoods, provides eight miles of magnificent Dolomite scenery, in the shadow of the incredible Sella precipices and the dark, jagged Langkofel peaks rising fantastically ahead. High up between the two groups, a green saddle carries the Sella Pass (7,264ft) over to Ortisei in the Val Gardena, the two roads joining only a mile or two before Canazei in the bottom of the valley. The Sella, unlike the Pordoi, has a lovely unobstructed view of the Marmolata, the 11,300ft "Queen of the Dolomites," the glaciers and the valley at her feet; this alone would make the diversion and the half-hour's twisting gravel climb worth while.

At Canazei the mountain links of the Dolomite Road proper end; but the fast road which falls gently along the beautiful Avisio valley, through Campitello and Moena, for 20 miles to Predazzo, and thence by the Val di Fiemme to join the main Adige Valley highway from Bolzano to Lake Garda and the Italian plains, leads to two other subsidiary passes. The first, the 5,752ft Costalunga, climbs away to the west from Vigo di Fassa, past the famous but overrated lake at Carezza al Lago (Karersee), then down the Val d'Ega to Bolzano, a very pleasant drive.

The second, the 6,463ft Rolle, is much more than that. For on its long way, past the meadows of Fontanefredde and through the magnificent forests of unusually tall pines which clothe the slopes on both sides of the saddle, to San Martino de Castrozza (4,740ft) on its southern side—considered by many to be the loveliest of all the Dolomite resorts—it deservedly claims a classic mountain view. This is the breath-taking aspect, from the summit of the pass and anywhere on the turf slopes about it, of the 9,000ft Cimone della Pala, often called the Matterhorn of the Dolomites, soaring like a slender blade above the fine precipices of its only less sensational Dolomite neighbours.

This lovely road is at present a mixture of the old-fashioned and the new. There is still one rather narrow, winding sector, where perhaps more than ordinary caution is required, about half-way up on the Predazzo side. This is certainly no reason for missing an enchanting drive.

HUGH MERRICK.

Left: The Avisio Valley—Moena and the Rosengarten. Right: Summit of the Rolle Pass with the Cimone della Pala rising beyond



The Berkeley structure is almost entirely of glass fibre. The bonnet lid is hinged at the front. "Over-riders" provide firm protection



Autocar ROAD TESTS 1696

Berkeley 492 c.c. Sports

DE LUXE

STILL very new to the motor industry, the name of Berkeley is becoming increasingly widely known as the production line at Biggleswade in Bedfordshire—now producing on average about 50 cars per week—gets into its stride. At race meetings, special events even have been programmed for the make—mostly for the little two-cylinder 328 c.c. version, of which a test was published in *The Autocar* dated 10 January, 1958.

The three-cylinder model which is the subject of the present test was introduced at the 1957 London Motor Show, and is powered by a 492 c.c. air-cooled two-stroke Excelsior engine, for which an output of 30 b.h.p. (gross) is claimed; the results achieved certainly substantiate this figure. Thus the Berkeley has progressed into an entirely different performance category, and the three-cylinder model can be termed a true sports car.

For those unfamiliar with the make, the Berkeley is constructed almost entirely of glass-reinforced polyester resin, the three main mouldings—a punt-shaped base, the bonnet and tail—being bolted together to form a unit which does not depend upon a separate chassis frame. Engine and transmission are supported by a steel sub-frame, however, and there is also an aluminium alloy bulkhead. This construction makes for exceptionally light weight, the test car, with a full tank (5 gallons) and ready for the road, scaling only 7.5 cwt.

The three-cylinder engine has the same cylinder dimensions as the twin (58mm bore, 62mm stroke), is of the transfer-port type, and is fed by a separate Amal Monobloc carburettor to each cylinder. It is mounted transversely, forward of the front wheel centres. At one end of the crankcase is a Siba Dynastart, which is used for starting and as a generator for the battery, and also incorporates a

low-tension make-and-break assembly to feed three individual coils.

At the other end of the crankshaft, a double-roller primary chain carries the drive to a motor-cycle-type multi-plate clutch running in oil, and thence to an Albion four-speed quadrant change gear box (incorporating also a reverse) which is bolted to the back face of the crankcase below the carburettor. An open roller chain transmits the drive thence to a chassis-mounted differential, the front hubs being carried on wishbones of unequal length, and the wheels driven by universally jointed shafts. The rear wheels are also carried independently on swing axles, while Girling coil spring-and-damper units are used for all four wheels.

Particularly while the car is a novelty to them, drivers will tend to use the gears and high r.p.m. freely, and hence increase the fuel consumption. This fact, and the performance testing also included, no doubt account for our rather low overall m.p.g. figure. There should be no difficulty in obtaining well over 40 m.p.g. for out-of-town journeys.

It is surely a remarkable achievement that this baby car should record a mean maximum speed of 80 m.p.h.; this has not been attained by freak gearing, since acceleration figures are thoroughly in keeping. For instance, to reach 50 m.p.h. in 14.4sec is no mean feat, and the standing-start quarter-mile figure of 22.4sec, whereby it can show a clean pair of heels to some family saloons with engines up to five times the size, is also highly creditable.

These figures are partly owed to especially suitable spacing of the gear ratios, giving maxima in increments of approximately 20 m.p.h. between first and second and between second and third, the last-named ratio peaking at 70 m.p.h. In fact, the useful range of third gear extends from about 25 m.p.h. up to its maximum, so that it can be used fre-

Ease of entry and exit is unusually good for such a small sports car. The instruments, lettered in white on black, are (from left to right) rev counter, ammeter, fuel gauge, and speedometer with total and trip mileage recorders. On the right of the fascia is the screen washer control. When not in use the hood is stowed in the lidded compartment between the seats and the luggage grid





Separate amber winking indicators are fitted beneath the recessed head lamps, which incorporate parking lights. From certain angles the tidy appearance is marred by the protrusion of the ornate wheel trims, which can easily strike a high kerb. If the spare wheel is mounted on the luggage rack, additional interior space is provided for baggage; normally the wheel is stowed immediately behind the seats or under the scuttle

Berkeley 492 c.e. Sports . . .

quently in traffic at one end of the scale, and provide close support to top gear at the other.

The power unit produced an exhilarating noise, more closely comparable with that of a Grand Prix car than with a touring road vehicle. The exhaust note is unnecessarily obtrusive and attracts unwelcome attention, especially at the high revs which are required to get the best performance. At low revs and on part throttle, the engine spent much of its time burbling unevenly, and would fire on every stroke only when pulling. Throughout a rather wide intermediate range, there was considerable high-frequency vibration which transmitted itself through the steering-column to the driver's hands, but at its highest crankshaft speeds, the unit became again extremely smooth up to the maker's recommended limit of 6,500 r.p.m.

A 16 to 1 mixture of petrol and oil (two gallons to a pint) is specified—a rather extravagant diet in contrast with continental water-cooled two-strokes, which now are operating on mixture ratios of up to 40 to 1.

At first acquaintance, the lightning speed with which engine revs will build up—indeed, it is all too easy to send the revolution counter needle rushing well beyond the graduated scale, especially if a gear is missed—and the accompanying spirited uproar are rather rewarding, but once the novelty has worn thin, one pines for less fuss and noise. It would appear that the carburettors are difficult to seal against fuel leakage, and there was a pronounced smell of petrol in the cockpit throughout most of the testing.

The combination of very haphazard idling and an insen-

sitive and fierce clutch, of which the pedal could be released only in jerks due to friction in the operating cable, made take-offs from rest difficult in the extreme. Even after considerable acquaintance with the car, it was all too easy to stall the engine whilst trying to get away; a consolation was that the Siba Dynastart enabled one to re-start the engine instantly at the pressure of a button on the fascia. Once on the move, the clutch did all that was asked of it, and showed no tendency to slip during repeated gear changes; it was found impossible, however, to re-start the Berkeley on a one-in-four gradient without overtaking the clutch; during our attempts there was also some difficulty with front-wheel spin. There was never a sign of clutch drag.

In the absence of winter conditions we were unable to establish whether the dynamo-small-battery combination would be adequate to meet all demands, but several starts in the period of an hour's run, when head lamps and wipers were also in use, left the battery noticeably flat.

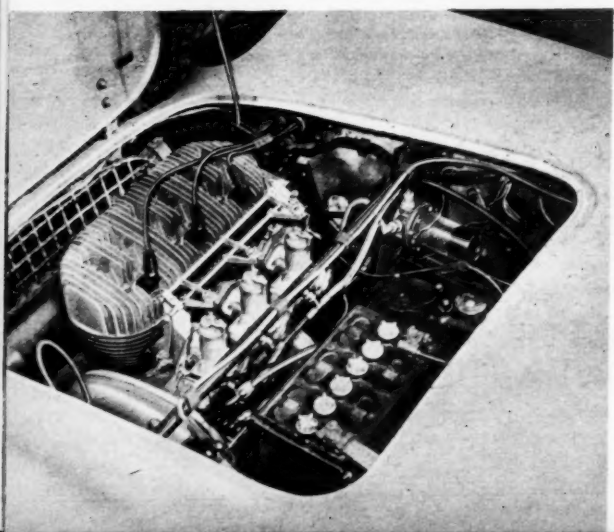
Considerable improvement has been made in the gear-change mechanism since the first Berkeleys were produced, and the lever motion in its selector quadrant is very reasonably definite. It was often impossible to engage first or reverse gears from a standstill without first releasing the clutch to spin the gear pinions a little. The gear change mechanism is light; indeed, with the pressure of one or two fingers only behind the lever, the driver is less likely to overshoot one ratio and pass into the next. The quadrant lever, mounted centrally on the floor, is arranged to engage reverse when pushed fully forward, and is pulled back towards the driver for neutral and the four forward ratios. The lever is spring-loaded to the right; to engage second, it must first be sprung left before bringing it back. For the other two upward changes, the spring loading resets the lever after each engagement, so that only a straight pull back is called for.

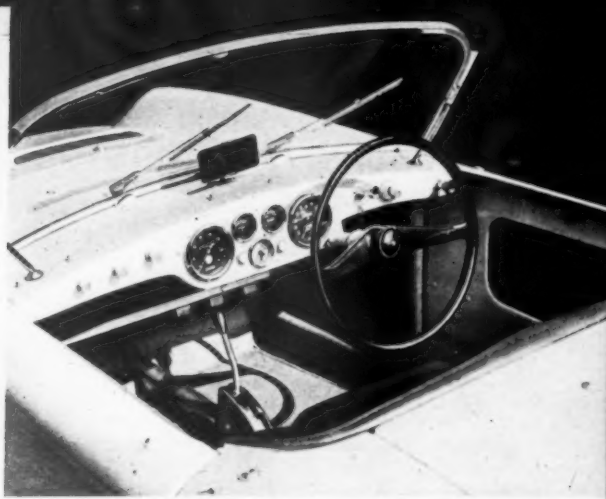
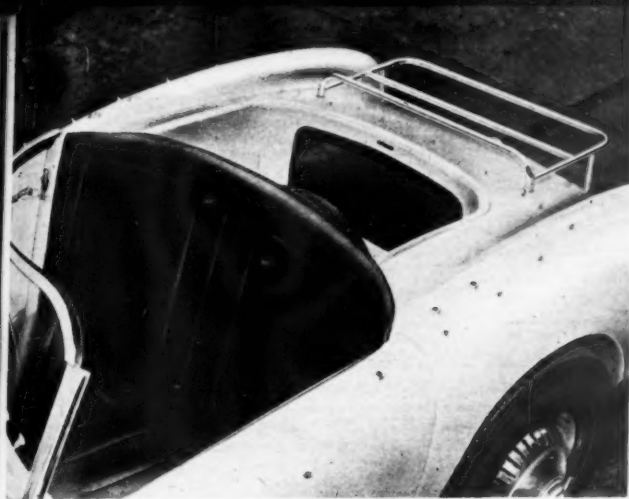
When changing down, top to third is a direct movement, but the lever has to be pressed to the left when changing from third to second and second to first. The constant-mesh gears are engaged by dogs, but double-declutching is not called for, and the change demands little skill of the driver. Uneven firing of the engine at low crankshaft revolutions accentuates the lack of spring in the transmission—always a feature of cars having their power units adjacent to the final drive, without the torsional resilience of a long propeller-shaft to absorb shock.

Moreover, since the drive shaft universal joints are not of the constant-velocity type, on very sharp turns there is some front-wheel flap which comes back to the driver's hands. Since its comparatively recent introduction the Berkeley has earned an excellent reputation for general roadworthiness, in terms of cornering powers, steering and brakes, but these qualities require further qualification.

The combination of front wheel drive, a low centre of gravity, and a comparatively wide track result in a high standard of stability on wet and dry roads. The car gives a very satisfactory ride for its occupants considering its

The three-cylinder Excelsior engine is mounted just behind the radiator grille, each cylinder having its own carburettor. Battery and fuel pump are easily reached. Part of the chain drive to the differential can be seen beside the clutch housing, under the nearest carburettor





There is luggage space behind the seats which may be covered by the glass fibre panel seen in place on the right. The horn button, matching the starter control, is placed to the left of the clock, an optional extra. The gear lever operates in a fore-and-aft quadrant, with notches in the "gate" to assist positive location of each gear position

Lilliputian dimensions, and normally its cornering abilities are extremely high, nor is there any apparent tendency to roll. On the other hand, certain steering characteristics make it a little treacherous at times, particularly when the throttle is not wide open. There is no caster action of the front wheels, and some artificial centring means, such as the incorporation of centralizing springs in the rack-and-pinion steering gear, would be appreciated by drivers accustomed to more conventional vehicles.

Whilst the engine is pulling the Berkeley can be aimed precisely and pleasantly, but on the overrun or on very light throttle loads, the steering becomes somewhat dead, and over rough surfaces there is a tendency to wander. Normally, this reduction in directional stability never embarrasses except while braking from high speed, or when cornering on a rough surface, whereupon a slight alteration in power applied will change its characteristics. When, for example, a roundabout is taken fast, there is some tendency for the front to dig into the corner.

The steering requires a little more work than expected at low speeds, and over uneven ground there is considerable vertical shake of the column.

It will be seen from the performance tables that excellent braking figures were achieved, as with the previous Berkeley tested. Under full power braking, some right lock had to be applied to keep the car on a straight course, nor were the brakes completely smooth in operation. The subsequent failure of a brake drum suggests that this may have been due to some misalignment or eccentricity of that particular drum. Pedal pressures were always reasonably light, and the brakes proved able to withstand hard driving tactics without fade. The umbrella-handle-type hand-brake beneath the fascia on the driver's right was found to be fully able to hold the laden car on a one-in-three gradient.

Development work on the body has included the lengthening of the doors by 5in, so that the current Berkeley is much easier to enter and leave than the earliest models. Moreover the seating, with plastic trim over shaped foam-rubber cushions, has been much improved, while at the same time there has been an increase in leg room. A tall driver, however, may well find that the accelerator pedal is a little close, but without the luxury of a seating adjustment, a compromise position, of course, has had to be chosen.

The steering-wheel is too close to the driver for comfort or to allow the currently fashionable arms-outstretched driving position, and the internal width of the car is such that the driver with passenger may find some slight restriction on elbow movements. Since the wheel rim has several inches of clearance from the fascia panel, there would seem to be no obvious difficulty in fitting a shorter steering column.

A well-equipped fascia panel includes, in the centre, a most necessary revolution counter peaking at 7,000 r.p.m., an almost accurate speedometer, which incorporates total and trip distance recorders, an electric clock, ammeter and fuel contents gauge. Also in the centre are identical push-buttons for the horn and self-starter; it would be more convenient in an emergency if the horn button was either in the steering wheel boss, or beside the screen-washer plunger to the extreme right of the driver.

Flashing signal lamps are operated by a switch, which is not self-cancelling, in front of the driver, and the lamps, screen wipers and instrument panel lights are controlled by three push-pull switches in front of the passenger. The screen wipers are not self-parking, and their blades could be extended by nearly 2in to cover a much larger area of the curved screen. Beneath the fascia are deep shelves, of which the one on the left can be used to carry the spare wheel when the rear compartment is required for other purposes; the folded tonneau cover will stow away neatly in the right-hand compartment.

In addition, there are large apertures in the doors for stowing maps and other oddments. The rear-view mirror, mounted on the scuttle just behind the lower windscreen frame, is too low to reflect much more than the driver's and passenger's shoulders, and a suction-type mirror higher up on the windscreen itself would be more effective.

An adequate beam was given by the faired-in head lamps, but some of their illumination was visible through the extractor slot in the bonnet top, and proved distracting for the driver. Since the left foot is already very fully employed with frequent gear-changing, a manual dip-switch would be preferable. Rough-weather equipment includes a



In spite of the diminutive appearance of the car on the road, two grown-ups, a child and luggage can all be carried internally without squeezing them in

Berkeley 492 c.c. Sports . . .

plastic hood, of which the front edge knuckles round a lip on the top rail of the windscreen frame—a somewhat unorthodox attachment which proved fully effective in practice. It is supported by a light tubular frame, in interlocking halves, which drops into plated metal sockets just behind the seat squab. It appeared that the Lift-a-Dot fasteners by which the back of the hood is secured to the rear panel are scarcely adequate for the job; a more substantial type of fastener would deal with the hood in cold weather, when the plastic material is not so supple and easy to stretch.

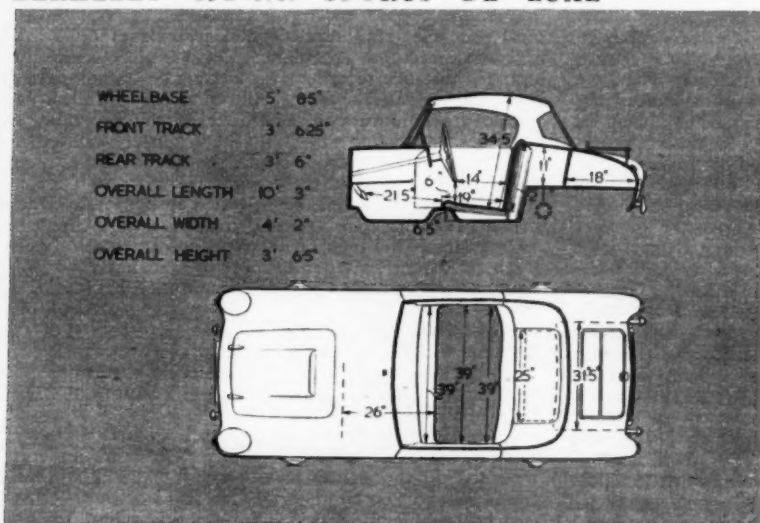
Large side screens (the frames of which drop into sockets in the doors) give excellent protection and allow good vision. The panels are of flexible plastic and incorporate a free flap for signalling and for reaching the door handles from outside. It was found, however, that with the hood and side screens in position, there was

insufficient ventilation, and some fresh-air inlet would be greatly appreciated during summer showers.

Behind the passenger's seat is a removable panel secured by a carriage key, and beneath this is space either for a little luggage, or if the spare wheel and hood frames are removed and placed beneath the fascia, two small children could sit here safely. Behind this is a further luggage space in the tail of the car, reached through a second, flexible panel. Moreover, on the car tested there was a chromed luggage rack mounted over the tail panel, to which the spare wheel could be attached in preference to luggage which could then remain clean and dry inside.

Cheapest and smallest of British sports cars, and certainly of most original and enterprising design, the Berkeley is quite unexpectedly agile, dimensionally handy for city traffic (although insufficiently tractable), generally comfortable and weather-tight. And, incidentally, it should attract motorcyclists who wish to graduate one step upwards from a side-car outfit, and who may well be on familiar terms with air-cooled two-strokes and part-chain transmission.

BERKELEY 492 c.c. SPORTS DE LUXE



Scale 1/4 in to 1 ft. Driving seat in central position. Cushions uncompressed.

PERFORMANCE

ACCELERATION:

Speed Range, Gear Ratios and Time in Sec.
M.P.H. 4.6 to 1 6.3 to 1 9.2 to 1 15.2 to 1

10-30	—	—	6.2	—
20-40	15.5	9.4	5.8	—
30-50	15.2	9.4	—	—
40-60	16.5	12.0	—	—

From rest through gears to:

M.P.H.	sec.
30	5.6
40	8.8
50	14.4
60	21.8
70	34.5

Standing quarter mile 22.4 sec.

MAXIMUM SPEEDS ON GEARS:

Gear	M.P.H.	K.P.H.
Top	(mean) 80	128.7
	(best) 83	133.6
3rd	70	112.6
2nd	49	78.9
1st	29	46.7

TRACTIVE EFFORT:

	Pull (lb per ton)	Equivalent Gradient
Top	105	1 in 21.2
Third	230	1 in 9.7
Second	300	1 in 7.4

BRAKES (at 30 m.p.h. in neutral):

Pedal load in lb	Retardation	Equivalent stopping distance in ft
25	0.20	152
50	0.47	64
75	0.65	46
85	0.93	32

FUEL CONSUMPTION:

M.P.G. at steady speeds

M.P.H.	Direct Top
30	63.5
40	57.2
50	46.5
60	37.7

Overall fuel consumption for 620 miles, 33.1 m.p.g. (8.6 litres per 100 km.).

Approximate normal range 31-43 m.p.g.

(9.4-6.6 litres per 100 km.).

Fuel: Premium grade, with oil in the ratio of 16 to 1.

DIMENSIONS: Wheelbase, 5ft 8.5in.

Track: F, 3ft 6.25in; R, 3ft 6in.

Length (overall): 10ft 3in.

Width, 4ft 2in (standard), 4ft 5in (over wheel trims).

Height, 3ft 6.5in (top of screen).

Ground clearance, 7in.

DATA

PRICE (basic), with two-seater body, £432 9s.

British purchase tax, £217 11s.

Total (in Great Britain), £650.

Extras: Luggage grid £7 10s.

Tonneau cover £6 10s.

Revolution counter £8 (plus fitting).

Wheel rim trims £4 10s.

ENGINE: Capacity, 492 c.c. (30 cu in).

Number of cylinders, 3.

Bore and stroke, 58 x 62 mm (2.28 x 2.44 in).

Valve gear, ported two-stroke.

Compression ratio, 7.5 to 1.

B.H.P. 30 (gross) at 5,000 r.p.m. (B.H.P. per

ton laden 56.8).

Torque, 35.4 lb ft at 3,500 r.p.m.

M.P.H. per 1,000 r.p.m. in top gear, 13.2.

WEIGHT (with 5 gals fuel): 7.5 cwt (847 lb).

Weight distribution (per cent): F, 64.5; R,

35.5.

Laden as tested, 10.5 cwt (1,183 lb).

Lb per c.c. (laden), 2.4.

BRAKES: Type, Girling.

Method of operation, hydraulic.

Drum dimensions: F, 7in diameter; 1.25in

wide. R, 7in diameter; 1.25in wide.

Lining area: F, 32.5 sq in; R, 32.5 sq in (123.1

sq in per ton laden).

TYRES: 5.20-12 in Michelin Super-Com-

fort.

Pressures (lb sq in): F, 14; R, 12.

TANK CAPACITY: 5 Imperial gallons.

Cooling system, air-cooled, no fan.

STEERING: Turning circle:

Between kerbs, 27ft 2in.

Between walls, 28ft 8.5in.

Turns of steering wheel from lock to lock, 24.

ELECTRICAL SYSTEM: 12-volt; 22 am-

père-hour battery.

Head lights, double dip; 24-24 watt bulbs.

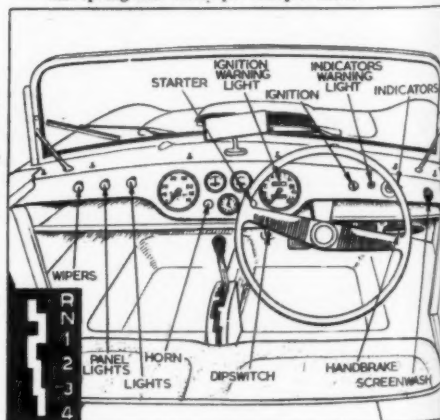
SUSPENSION: Front, independent, wish-

bones with Girling coil spring and teles-

copic damper units.

Rear, independent, swing axles with Girling

coil spring and telescopic damper units.



New Kieft Sports Car

KIEFT AUTOMOBILES, now situated in Birmingham and directed by Berwyn Baxter, are developing a new 1,100 c.c. sports-racing car; deliveries are expected to begin in September. It will have a space frame, with wishbone and coil spring independent suspension front and rear. The body will be panelled in aluminium alloy, and power supplied by a Coventry Climax FWA engine with stage 3 tuning, i.e., with five bearings for the single overhead camshaft.

New Porsche Convertible

HITHERTO all Porsche bodies have been constructed by the adjacent Reutter company, at Stuttgart-Zuffenhausen, but Porsche's expansion and development programme has led them to contract with a second body-maker, Drauz of Heilbronn, to construct their latest product, the Convertible D. This new model, which succeeds the Speedster, is more luxuriously equipped than its predecessor. Among the improvements are winding windows in place of flexible side screens, deeper windscreen, more stylish soft top, an enlarged rear window and more comfortable front seats. Alternative 1,600 c.c. engines for the Convertible D are the normal 60 b.h.p. unit and the 75 b.h.p. Super. It is available in ruby red, Meissen blue, ivory or metallic silver.

In the U.K., the new convertible is priced at £1,330 plus £666 7s purchase tax—total £1,996 7s. An extra £195 is charged for the more powerful engine.

Goggomobils Named

NAMES have been given to the two basic models of the Goggomobil. The TS300 and TS400 saloon and sliding head models are to be known as the Goggomobil Regent, and the coupé in both 300 and 400 sizes is to be called the Mayfair.

Build Yourself a Typhoon

FOR £200 a tubular chassis frame, with swing-axle independent front suspension, to take Ford Eight and Ten engine, transmission, steering and other parts (1937 models onwards), and a sporting body in glass fibre laminate are obtainable from Tornado Cars, Ltd., of Rickmansworth, Hertfordshire. Frame and body are available separately at £70 and £130 respectively, and a complete car, incorporating all new parts, is also listed at £760, including purchase tax. This new production is called the Tornado Typhoon.

Manhattan for Buenos Aires

KAISER INDUSTRIES OF ARGENTINA, who already produce the Jeep and Jeep estate car in central Argentina, have now introduced a local version of the 1951 Manhattan, called the Carabela. There are no styling changes from the original Manhattan design, and the engine is a six-cylinder side-valve unit of 3½ litres with a relatively low compression ratio at 6.86 to 1 to cope with the poor petrol available locally. The price is equivalent to about £2,000, but our correspondent states: "... The waiting list for this car is already up to two years. This is because imports of cars are heavily taxed, and the cheapest foreign car costs around £3,000 in Buenos Aires although there are no restrictions on the quantities of imports."

More News and Views



LATEST PORSCHE product is this slick two-seater, the Convertible D, with bodywork by Drauz of Heilbronn in Germany. It is more luxuriously equipped than the Speedster which it replaces and alternative 1,600 c.c. power units produce 60 and 75 b.h.p. (see left)

Next Week

- ★ On tour in Norfolk
- ★ Impressions of the Michelotti Triumph TR3
- ★ Road Test—Borgward Isabella
- ★ Filtration in Lubrication
- ★ News and Racing.
- ★ Anecdotes from Japan.

Compulsory Insurance for Italy?

A BILL to introduce compulsory third party insurance for cars and motor cycles has been proposed by seven members of the Chamber of Deputies in Italy. It provides for full imprisonment or fines.

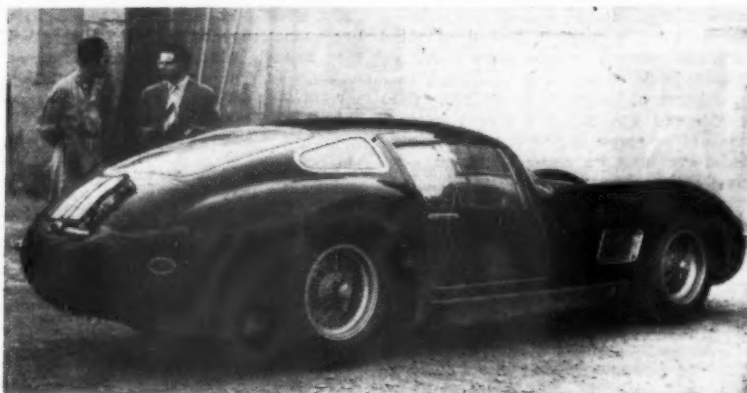
More Cars for Sweden

DURING the first three months of 1958, more cars than ever were sold in Sweden—28,350 passenger cars were registered during the period—and with the April sales, the four-month total

was 42,042 cars. General Motors' Opel Rekord tops the list with 5,257 cars registered during the first quarter; Volkswagen follow with 4,412 cars; Volvo PV 444 third, reaching 3,290, and the various Ford Taunus (12, 15 and 17 M) fourth. Best-selling British cars were, as usual, the Ford Anglia and Prefect, accounting for 1,119 and taking seventh place. Morris Minors sold totalled 378, compared with 376 in the corresponding period of 1957. The Vauxhall Victor occupied fourteenth place with 369 cars sold. The Velox and the Cresta are yet too new to have established a position in the registration statistics.

Dunlop for Turkey

WITH the approval and support of the Turkish Government the Dunlop Rubber Co., Ltd., has entered into an agreement with Federal Turk Kamyonlari of Ankara, for the establishment of a tyre factory in Turkey. Dunlop will design the factory, and will acquire a financial interest in the project. The new factory is calculated to satisfy the major portion of Turkey's tyre requirements.



THIS REPLICA of Stirling Moss' 4.5-litre Vee-8 Maserati, which ran at Le Mans in 1957, has been ordered by a wealthy American, at a cost of approximately £5,400 (see paragraph in The Sport)

HOW THEY WORK AND HOW TO LOOK AFTER THEM

Overheating—with a Good Car

OVERHEATING of engines is in season. Disregarding old cars, which with staggering loads and furred radiators may be expected to run hot, there are curious instances which affect good cars. Two recent ones are of interest.

A modern car overheated badly, and the most careful checks indicated that all was well with the fan belt, the pump, the thermostat, and the various causes of hot-running weak mixture. There was evidence that water escaped from the radiator cap and the overflow pipe. The cap was checked, found perfect, and replaced to make sure but the trouble persisted.

Some undue pressure in the cooling system might be suspected. No film of oil could be detected in the header tank of the radiator to indicate leakage from the combustion chambers; a test for suspicious smells was made without success. Radiator water normally smells of rubber, rusty iron, and any irregular source of water supply; in this case, an additional odour of exhaust gas was lacking. Nevertheless, the trouble was finally traced to a faulty cylinder head gasket.

The tiny fault was not such as to admit water to a cylinder when the engine was not running, and to cause misfiring on starting from a damp plug. The little stream of hot gas blown into the water when the engine was pulling hard—the loss of water had been associated with fast runs—was obviously insufficient to overheat the water. One may speculate that it created a pressure which occasionally lifted the spring-seated radiator cap, and that modern water circulation is so vigorous that the coolant escaped by the overflow pipe, each time that the gas leak lifted the cap off its seating.

The other case concerned a modern car which normally ran cool and still does. But on holiday, on a very long hill, in quite cool weather, it had a tremendous boil-up. The speed, load, gradient, were stated and—fortunately—the date. The weather record of this date, and a look at a map, showed that a genuine half-gale had been blowing, from dead astern of the car as it climbed. The wind speed was probably greatly in excess of the speed of the car. Not only had there been no natural forward-progress airflow through the radiator, but the overtaking wind must have been fast enough to defeat the efforts of the fan.

If the driver had realized this at the time, and had made his climb at high revs and speed in a low gear, as though he were gaining seconds in a rally, the boil-up might not have occurred.

There is a useful hint here: if a car climbing a mountain pass in a following wind is running hot, the same speed at lighter throttle opening, in third gear, so speeds up the fan as to restore a proper running temperature.

There seems to be quite a general idea that boiling in high altitudes is due to the lower boiling temperature of water. That may affect the quality of picnic tea, but it is a thing that does not bother the radiator water. The modern spring-loaded filler cap and pressurized cooling system knows nothing of the world around. It lives at its own more or less constant pressure.

Touring Britons in good cars may come across a form of boiling of petrol in the Alps, however. The fuel vaporizes in the pump and lines, and there is a form of fuel starvation.

As a result of diminishing atmospheric pressure, power falls off slowly as altitude increases, and at 4,000-5,000ft the effect is often quite apparent. High-compression engines can run on a rather lower octane fuel at altitude than at sea level, without pinking. Modern high-octane fuels are quite volatile, but cheaper grades are less so, and if there is much alpine work involved, it will help to run on the lowest grade of fuel which the engine will tolerate without pinking.

A real cause of fuel vaporizing in the system is the presence in some Continental petrols of certain kinds of agricultural-surplus alcohols. Alcohol is in many ways a good car fuel, but it vaporizes readily.

A more important cause of vaporization in the fuel system is the great heat which is radiated by the exhaust manifold and pipe. They are not in contact with cooling water which may be showing "normal" on the thermometer. Things may be all right while the car is running, and while the fuel system is in a fan plus car speed airflow. But if one halts for a view, or for a cup of tea, the heat can be radiated to the fuel pump and lines and cause the fuel in them to vaporize. The fuel also boils in the carburetors, causing flooding and consequent over-richness when restarting.

Three remedies are available. If halts prove troublesome because of vapour lock, the bonnet may be opened. There will then be a vigorous convection airflow upwards. To cure or avoid the breakdown the car may be left facing the wind.

As a temporary measure, fuel pumps may be cooled and protected by wrapping with a wet rag—that is, mechanical pumps on the engine, of course. One does not surround electric pumps with dampness, which might cause electrical breakdown. Engines with electric pumps are often immune from vapour lock because the pump is located well away from sources of heat. When vaporization does arise, usually the electric pump will speed up, and will impel vapour through the emptying carburettor bowl and its vent, until it gets solid fuel and ceases to rattle.

A more lasting cure for vaporizing pumps or, perhaps, fuel lines, is to protect them from exhaust and manifold radiation by asbestos shields, wired in place. A flexible type of asbestos mat which can be obtained from many ironmongers' shops is a suitable material. Asbestos string is also obtainable.

Modern bonnets may tend to enclose a pocket of hot air, when inlets and outlets are low down. Cars prepared for rallies, with cooling louvres along the bonnet top, represent a degree of carving-up of the coachwork which the ordinary owner—with his thoughts on the second-hand situation—may not contemplate. But without straining the hinges, it is often possible to trap something—an inch or two of rubber tube, perhaps—at the rear edge of the bonnet, so that it does not close properly and provides a valuable extra outlet for hot air.

In passing, this idea may be of great value for winter, too. It is a great palliative of freezing fog, with which the wipers cannot cope.

All very hot underbonnet conditions, including parking in the hot sun, can increase vaporization of the battery electrolyte. It is possible to have a Continental holiday without overheating at any time, yet find that it is necessary to top up the battery daily with a surprisingly large amount of distilled water.

As a footnote, it should be added that the old cars boil because of inadequate cooling systems; furred or dirt-blocked radiator tubes; and perhaps a weak mixture, due to any of several causes.

COTTAGE CAMPING IN SWEDEN

HAMMERDAL, a small community in the very heart of the County of Jämtland, which itself is in the heart of Sweden, offers a new type of camping holiday for the motorist who really wants something different. Hammerdal has a number of Lapp cottages, which consist apparently of a mound of wood, stones and earth and a simple wooden door; the local community has equipped these huts in a very comfortable way, and they are available from this year for campers. For the less adventurous ordinary cottages are available.

Hammerdal is among the mountains in one of the most beautiful areas of all

Sweden; the county is attractive and unspoilt, and is easily reached by car, rail, bus or air via Östersund. The most attractive route for motorists is from Stockholm to Sundsvall, on the Baltic coast of Sweden, and then inland to Hammerdal, as this covers some of the most beautiful of Swedish scenery. Hammerdal has some of the best fresh-water fishing and bathing in Sweden.

Full details are available from Hammerdals Touristföreningen, Hammerdal, Sweden. Bookings may be made direct or through travel agencies in Sweden, or in England through Thos. Cook & Son.

B.D.C.'s Thunderous Silverstone

LIGHTNING conductors were the order of the day at the Bentley Drivers' Club recent Silverstone meeting. After a relatively fine morning for the sprint classes, the afternoon's races were punctuated by a spectacular thunderstorm which made the track somewhat tricky and caused one race—the five-lap handicap for Lagondas—to be re-run. Lightning struck the electricity supply, affecting timing and public address systems.

The sprints were remarkable for the acceleration extracted from elderly machinery: M. J. Bradley's 3-litre Bentley, for example, returned 18.54sec in his best run. Fastest sprint (standing quarter-mile) was by G. Lee's Jaguar XK120C, 15.05sec.

The first two races (which were five-lap handicaps) ran concurrently, one being for 3-litre Bentleys, and the other for those of 4½, 6½ and 8 litres. First home was the great 8-litre of F. P. Morley, who therefore won his race; winner of the *petites cylindrées* part of the event was D. W. Llewellyn's 3-litre.

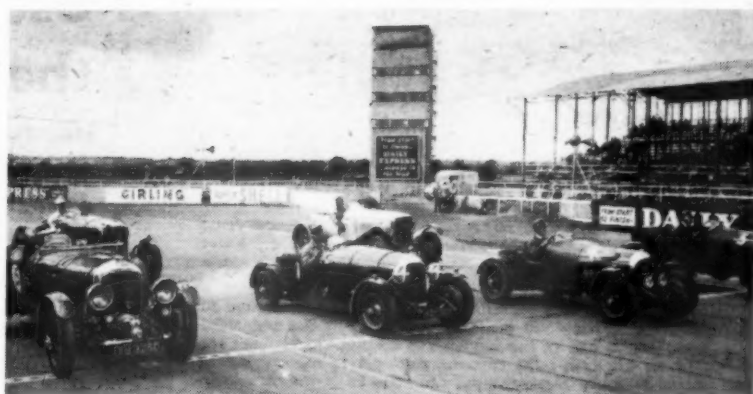
Next came another Bentley two-in-one affair—five laps for 4½s up to 10ft wheelbase, and the same for "long" cars of that capacity. G. H. G. Burton's 4½ was a non-starter, having lost a big end during the sprints, but he was sportingly lent H. S. Pounds' car. Only four contestants lined up for the start, and G. G. McDonald's 4½ turned in the creditable winning speed of 69.75 m.p.h.; for this he received the Gordon Alexander Memorial Trophy. First in the over 10ft wheelbase class was R. H. B. Mason.

Lagondas were seen in the next event, which was preceded by the storm and was run on a very wet course—and in complete silence as far as the commentary was concerned; the elements had done their worst. However, next came a pride of Bentleys in a five-lap handicap race, and they were luckier, as the track had dried quite considerably. The winner here, D. McKenzie, made the most of his 1min 10sec handicap, and his average speed was 59.66 m.p.h. Pounds, having received his car back from Burton, put up the fastest lap—64.18 m.p.h. Incidentally, this race was something of a triumph for the handicappers, as five of the six runners finished within five seconds of each other.

Some interesting machinery appeared for the Vintage and Post-Vintage Thoroughbred five-lap handicap; there was also a spot of re-handicapping, and three non-starters. The pretty little Aston Martin G.P. of Dudley Coram, driven by Leslie Marr, went into the lead (with a 1min 15sec handicap), but was soon left by Bradley's 3-litre Bentley and Mason's 4½. These two then changed places once or twice and, after a battle royal, finished with Bradley barely two seconds ahead of Mason. Third was I. H. Mann's Ulster Aston Martin.

Now the Lagonda race was re-run, and a splendid collection of the breed turned out, including two team cars, of which one, the M45R of J. B. Kibble, was the winner at a speed of 60.03 m.p.h. This was the car in which Hindmarsh and Fontes won the 1935 Le Mans 24-hour race. There followed a five-lap handicap contest between four Jaguars, narrowly won by G. Lee in his C type, from R. E. Berry's potent and dashing driven Mark VII.

Next a thunderous array of Camionistes lined up on the grid for a Bentley 10-lap handicap race. A system of credit laps made it hard to be certain of the true state



Start of the first race, won by F. P. Morley in his 8-litre Bentley (left, back row). The supercharged 4½-litre (left, front row) is the Birkin team car of H. Rose

of affairs throughout this race, but this did not detract from the excitement. For some time R. H. Curtis' 3½-litre Derby-derived station wagon with two credit laps was leading, but about halfway, McDonald's 4½-litre (he was scratch man) passed him, *en route* through the field. This was of no avail, however, as Pounds' 4½-litre was very well to win at an average speed of 65.63 m.p.h. Second was McKenzie in his 3-litre. McDonald did, however, put in the fastest lap in this race at 72.18 m.p.h.

The penultimate race was an Aston Martin 'five-lap handicap, and out of a

small but varied field the winner was the 1½-litre of I. H. Mann, at 63.58 m.p.h. The meeting concluded with an All Comers 10-lap handicap—or re-handicap, performances of the day having occasioned second thoughts in many cases. P. H. Hills' supercharged M.G., with two credit laps, did not stave off the field for long, and Bradley's 4½, with one lap and 15sec, caught him about halfway and remained in front to the end. The DB2 of F. C. Matthews was very quiet but fast, and made third place. Second was G. M. Crozier's XK120C.

PROVISIONAL RESULTS

(lap distance 1.6 miles)

Five-lap Scratch Races (3-litre Bentleys): 1. D. W. Llewellyn, 7min 35.6sec, 63.61 m.p.h.; 2. D. McKenzie, 7min 43.4sec. **Fastest lap:** D. W. Llewellyn, 66.08 m.p.h. **4½, 6½, and 8-litre Bentleys:** 8-litre (F. P. Morley), 7min 15.6sec, 66.41. **Fastest lap:** 6½-litre (M. H. Morris), 67.94 m.p.h. **4½-litre Bentleys up to 10ft wheelbase:** G. G. McDonald, 13min 50sec, 69.75 m.p.h. **Fastest lap:** G. G. McDonald, 72 m.p.h. **4½-litre Bentleys over 10ft wheelbase:** R. H. B. Mason, 15min 21.2sec, 65.34 m.p.h. **Fastest lap:** M. J. Bradley, 65.3 m.p.h.

Lagonda Cars 5-lap Handicap Race: 1. M45R (J. B. Kibble), h'cap 1min, 8min 52.2sec, 60.03 m.p.h.; 2. Rapier (I. Howat), h'cap 1min 50sec, 8min 54.6sec; 3. 2-litre (C. B. Green), h'cap 1 lap 25 sec, 8min 57.2sec. **Fastest lap:** LG45R (L. S. Michael), 69.41 m.p.h.

Bentley Cars 5-lap Handicap Race: 1. 3-litre (D. McKenzie), h'cap 1min 10sec, 8min 5.2sec, 59.66 m.p.h.; 2. 4½-litre (H. S. Pounds), h'cap 59.66 m.p.h.; 3. 4½-litre (H. D. B. Kelly), h'cap 1min 10sec, 8min 9.8sec. **Fastest lap:** H. S. Pounds, 64.18 m.p.h.

Vintage and Post-Vintage Thoroughbred Cars 5-lap Handicap Race: 1. Bentley 3-litre (R. P. Bradley), h'cap 55sec, 7min 43.2sec, 63.86 m.p.h.; 2. Bentley 4½-litre (R. H. B. Mason), h'cap 55sec, 7min 45sec; 3. Aston Martin Ulster (I. H. Mann), h'cap 55sec, 7min 45.4sec. **Fastest lap:** Lagonda LG45R (L. S. Michael), 69.58 m.p.h.

Jaguar Cars 5-lap Handicap Race: 1. C Type (G. M. Crozier), h'cap 30sec 6min 56.4sec, 75.02 m.p.h.; 2. Mk VII (R. E. Berry), h'cap 30sec, 6min 57sec. **Fastest lap:** G. M. Crozier, 77.18 m.p.h.

Bentley Cars 10-lap Handicap Race: 1. 4½-litre (H. S. Pounds), h'cap 1min 20sec, 14min 42sec, 65.63 m.p.h.; 2. 3-litre (D. McKenzie), h'cap 1 lap 22sec, 14min 46.6sec; 3. 4½-litre (G. G. McDonald),

scratch, 14min 59.4sec. **Fastest lap:** G. G. McDonald, 72.18 m.p.h.

Aston Martin Cars 5-lap Handicap Race: 1. Ulster 1½-litre (I. H. Mann), h'cap 1min 50sec, 7min 46.2sec, 63.58 m.p.h.; 2. DB2 (F. C. Matthews), h'cap 54sec, 7min 57.6sec; 3. Ulster 2.4 1½-litre (W. Burton), 8min 0.4sec. **Fastest lap:** Spa 2-litre (C. J. Freeman), 68.91 m.p.h.

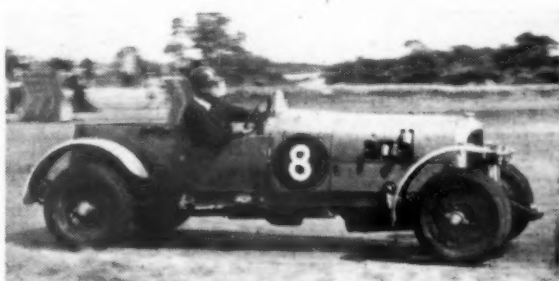
All Comers 10-lap Handicap Race: 1. Bentley 4½-litre (R. P. Bradley), h'cap 1 lap 15sec, 13min 23sec, 66.37 m.p.h.; 2. Jaguar C Type (G. M. Crozier), h'cap 20sec, 13min 50sec; 3. Aston Martin DB2 (F. C. Matthews), h'cap 1 lap 15sec, 13min 55sec. **Fastest lap:** Jaguar C Type (G. Lee), 74.22 m.p.h.

Standing start quarter-mile: 3-litre Bentleys: 1. M. J. Bradley, 18.54sec; 2. D. M. Llewellyn, 18.83sec. **4½-litre Bentleys up to 10ft wheelbase:** 1. H. S. Pounds, 16.74sec; 2. R. W. Howe, 17.05sec. **4½-litre Bentleys over 10ft wheelbase:** 1. H. P. Bradley, 17.65sec; 2. R. H. B. Mason, 18.61sec. **4½, 6½, and 8-litre Bentleys:** 1. 8-litre (F. P. Morley), 18.11sec; 2. 4½ (H. Rose), 18.95sec.

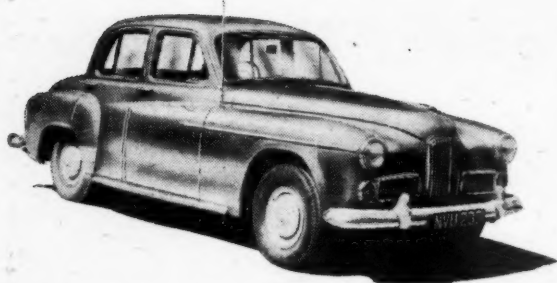
Post-1931 Bentleys: 1. 4½ (B. M. Russ-Turner), 19.31sec; 2. 4½ (H. P. Bowler), 20.62sec. **Aston Martins up to 2 litres:** 1. Spa 2-litre (C. J. Freeman), 18.98sec; 2. Le Mans (D. V. Greaves), 19.62sec.

Aston Martins over 2 litres: 1. DB2 (W. J. F. Tillyard), 17.43sec. **Rapier, 2, 3 and 3½-litre Lagondas:** 1. 3-litre (R. A. Newman), 21.43sec; 2. Rapier (I. Howat), 23.03sec. **2.6, 2.6 and 4½-litre Lagondas:** 1. LG45R (L. S. Michael), 16.78sec; 2. LG45R (P. Hunt), 18.06 sec.

Vintage cars up to 1½ litres: Brooklands Riley (W. S. Bader), 20.02sec. **Vintage cars up to 1½ litres and between 1½ and 3½ litres unsupercharged:** Riley Special (L. S. Richards), 17.23sec. **Vintage cars over 1½ litres and over 3½ litres unsupercharged:** 1. Lagonda LG45R (L. S. Michael), 16.47sec; 2. Bentley 4½-litre (R. W. Howe), 16.90sec. **Jaguars:** XK120C (G. Lee), 15.05sec; 2. XK140 (W. A. Chamberlain), 17.57sec.



The 4½-litre of G. G. McDonald taking Maggotts corner in spirited style during races 2 and 3 (combined). He came first in race 2



The Humber Super Snipe is the sort of car on which high mileages cause little mechanical deterioration, but other running costs are a problem

It is well known that for those whose motoring is limited to occasional holiday and pleasure use, probably the best used car to buy is one of the larger, less economical vehicles for which prices are low. An extreme example is the subject of this test, a Humber Super Snipe; ominous as is the 10 m.p.g. maximum petrol consumption, the model stands as typical of a fast, roomy and extremely comfortable car in very sound all-round condition offered at a price representing a depreciation rate of some £200 a year.

It is finished in battleship grey which, although free from chips or scratches, has faded sufficiently to give a rather drab appearance to the exterior. Bright, mainly unruined chromium saves the car from looking shabby. Inside, the cloth roof linings are unusually clean for a five-year-old car, and the maroon leather of the seats is creased but still sound. Water running down inside the doors has caused the trim to warp slightly. The maroon carpets in the front compartment are worn through, but in the back they are in better condition.

A 4,139 c.c. six-cylinder o.h.v. engine powers the Super Snipe Mark IV, and on this example it is in extremely good condition. Unless revving very fast it is quiet, and it delivers sustained power smoothly over a wide speed range, helping to make this an extremely fast long-distance express. Up to 80 m.p.h. may be adopted as a comfortable cruising speed, yet the car will also pull strongly from as low as 10 m.p.h. in top gear. The high-speed cruising ability was marred to some extent by vibration, amounting to a tremor over the whole car, which became noticeable at about 60 m.p.h. and was worse on some surfaces than on others. Possibly this would be improved or restricted if the wheels were balanced.

Starting was immediate, but the automatic choke was grossly out of adjustment. When correctly adjusted, this device on the Stromberg carburettor works extremely efficiently, but on this Super Snipe it was set so rich that it was worth the trouble—for the first start of the day—to open the bonnet, hold the thermostat rod down and run the engine at fast idle until it warmed up. Clutch slip occurred when starting from rest under full power, but this is another fault which may be cured by adjustment; as it was, the slip did not happen often in normal driving, but it accounted for 2 or 3 seconds in the standing start acceleration tests.

Apart from this there were no mechanical faults. The steering is not heavy for a car of this weight (38½ cwt), and there is no noticeable lost movement. The suspension dampers are very effective, and the springing provides a soft, comfortable ride over most surfaces normally encountered. Undulations sometimes induce pitching, but it is quickly damped out. Cornering and stability are very good, and the mild degree of understeer is not troublesome.

On the flat the car will start smoothly in second gear. The steering column gear change is a good one, light and positive to use, but the synchromesh is weak on bottom and second gears. All the indirect ratios are extremely quiet, and third gear will see the car into the 70s, although the engine torque range makes an earlier change into top gear preferable.

Fairly heavy brake pedal pressure is required, but the brakes are effective; they pull straight, and do not fade even when the car is driven hard on a cross-country run. The handbrake is powerful, and the lever, under the fascia, is easy to reach.

Under the car there is rather more corrosion than is normal at this age, but it is by no means critical as yet. A small gas leak from the tail-pipe end of the silencer was noticed.

All of the road wheels have Dunlop remould tyres. On the front wheels they are less than half worn, and the rear tyres have only run the 400-odd miles of the test. The spare is a well-worn Firestone. A jack, wheelbrace and most of the hand tools are in the toolkit.

Of the automatic switches for the roof lamp only one was working—on the driver's door—and the electric clock was also

X-HAND MARKET GUIDE

Used Cars on the Road-129

1953 HUMBER SUPER SNIPE IV

Basic price new	£1,045 0 0
Total price new	£1,481 10 10
Price secondhand	£450 0 0

Acceleration from rest through gears:	
to 30 m.p.h.	7.0 sec
to 50 m.p.h.	14.9 sec
to 60 m.p.h.	20.7 sec
to 70 m.p.h.	31.0 sec
20 to 40 m.p.h. (top gear):	9.1 sec
30 to 50 m.p.h. (top gear):	9.0 sec
Petrol consumption	10-16 m.p.g.
Oil consumption	negligible
Mileometer reading (see text)	37,727
Date first registered	June 1953

Provided for test by Tom Garner, Ltd., 10-12, Peter Street, Manchester, 2.
Telephone: Blackfriers 9265-7.

out of action. A more serious fault was that the trip and total mileometers were stuck at the mileage recorded above, and it may well be that the car has covered a higher mileage.

An efficient fresh-air heater and an H.M.V. radio (which has a second loudspeaker and individual volume control on the rear parcels shelf) are the two extras on the car. The excellent tone of the radio is marred by a faulty aerial contact.

This Humber Super Snipe is a fine car to drive. First-class visibility is provided from the high driving position, and the car does not seem bulky or cumbersome from inside. The seats are very comfortable and, with the effortless way in which the car gallops along at high speed, long distances can be covered without fatigue for driver or passengers. The penalty, in terms of m.p.g., should not be under-estimated. Tricking along with the August bank holiday traffic and four people on board 10½ m.p.g. resulted. Using the maximum performance on a main road journey, there was an improvement to 15 m.p.g., suggesting that attention to the carburation may improve the consumption at low speeds. The best figure achieved was 16 m.p.g.

The grey paintwork of the metal fascia is unmarked, but the car's interior is spoilt in front by badly worn carpets which are through to the underfelt on the passenger side. The seat squab is adjustable in three positions





IRISH countryside unfolds in the view from Runabay Head, on the Antrim coast road

Correspondence

Canadian Zodiac

600 Miles in a Day. I am the owner of a 1957 Ford Zodiac. Recently five of us made a trip from Toronto, Ontario, to Winnipeg, Manitoba, via the Trans-Canada Highway, a distance of 1,365 miles. Some of the roads in this area are in very poor condition, due to construction work. Sometimes we travelled as much as 600 miles in one day (no night driving). One Goodyear tyre was at fault, but the Goodyear people in Winnipeg provided a new one at a very minor cost. I am writing this letter because a high percentage of Canadians think that the English-made car is not suitable for Canadian roads or climate. Toronto, Ontario, Canada.

IRVIN WALD.

Motoring History

Queries for the Record. Mr. Erwin Tragatsch (4 July) takes T. A. S. O. Mathieson to task, in his article (20 June), for not referring to the Duesenberg bought by the Ferrari stable. As I read it, Mr. Mathieson was writing about American cars *driven by Americans* in European races, which is why he did not refer to the Duesenberg or to Count Zforowski's Miller in the 1924 French G.P., to which S. C. H. Davis refers in his book "Motor Racing."

May I point out to Mr. Tragatsch that it was R. L. Duller and not George Duller who drove the Duesenberg in unsupercharged form at Brooklands? For the guidance of future motoring historians there are a few other points worth correction. In Mr. Mathieson's article the car quoted as driven by Materassi was not a Dialto but a Diatto. In your issue of 4 July the car illustrated on page 12, driver Little, is not a Maserati but an Alta,

and in the Le Mans Appraisal on page 25 the Ecurie Monopole Panhards are quoted as having one o.h. camshaft per cylinder, whereas surely they have twin o.h. camshafts?

Fleet, Hampshire.

W. BODDY.

[When questioned at Le Mans, Professor Picard stated that the new Monopole engine had one camshaft per cylinder.—ED.]

More Tragatsch Memories of the Miller. Mr. Mathieson (25 July) requested information about races in which the French drivers Boucly and Marret competed. I personally saw both Miller 1.5-litre cars in the 1934 Masaryk Circuit race at Brno in Czechoslovakia. They proved highly unreliable and completely unsuitable for a European Grand Prix race, and during practice they could not finish even one lap. They were definitely not the two Bugatti-owned, ex-Leon Duray, Packard Cable Miller Specials—and they had also no f.w.d. Having been connected with two Bugattis—a 1,500 c.c. 8-cylinder and an older 1,500 c.c. 4-cylinder (37A) I remember very well that even the old car—produced 1928—was very much superior in speed, road-holding and reliability to the two American cars. I always had the impression that they were two ex-short track cars built around 1926-1927 and now bought by the Frenchmen from an American scrap car dealer. The third man in the Boucly-

Opinions expressed on these pages are those of our correspondents, with which The Autocar does not necessarily agree. Letters intended for publication should be addressed to the Editor, The Autocar, Dorset House, Stamford Street, London. S.E.1.

Correspondence

Marret equipe was another ex-Salmson driver, Decaroli, who drove a Bugatti 37A in single-seater form; I think this car was ex-M. Doré and Mme Ilier.

As all three drivers came from Nice, I think Louis Chiron could give Mr. Mathieson more information about these very disappointing Miller cars. As to the ex-Ferrari Duesenberg 4.5-litre car, the writer is correct, but . . . I have the impression that Mr. Whitney Straight was not born on European soil, and I think that even in 1934 when he drove the Duesenberg at Brooklands, he was an American living in England.

Coventry.

ERWIN TRAGATSCH.

Three Speeds or Four?

Specification for Chicago? Mr. G. W. Gaby (11 July) displays sober judgment and common sense in remarking that the acceleration and fuel economy of two comparable saloons is a function of their weight. Rovers are quite heavy, so are Austins.

However, let us dream of an Austin A.105 (or 117) with a good floor shift lever and the Laycock de Normanville overdrive on top. Likewise, let us imagine a Zephyr II with the full Raymond Mays conversion and the four-speed gear box which Messrs. Mays and Berthon designed, yet did not market. Undoubtedly the Mays conversion, delivering outstanding performance through three speeds, is misleading; give me four speeds and the wonderful Laycock overdrive on top. If you doubt their virtues, downshift into third at 65 m.p.h. with a Jag. 3.4 and see what happens!

Incidentally, Allard appears to have produced an adaptor for the fitting of the Laycock overdrive on the Zephyr II transmission; however, it operates on top only. It would be quite interesting to compare two Volvo PV444s, one with three, the other with four forward speeds!

Chicago, U.S.A.

RENE EYCHEN.

Speedometer Needle Hunting

"Do it Yourself" Technique. I would like to confirm the experience of correspondents who have found that speedometer needle hunting can be caused by stiffness of the mileage recorder mechanism. Liberal lubrication of the mileage figure drums with thin household oil will almost completely eliminate hunting; I cured my speedometer in this way and it has been performing satisfactorily now for some 40,000 miles.

Although I removed the speedometer mechanism from its case before oiling, I think it should be possible to lubricate the figure drums adequately through the windows in the speedometer face after the glass has been removed. Complete removal of the mechanism from the case generally involves taking off the speedometer needle, which may upset calibration.

London, W.8.

J. COCHRANE.

Triumph in Belgium

Durable 1800 Engine. From time to time correspondents achieve creditable mileages which they ascribe to the use, or any combination, of graphite; upper cylinder lubricant; and detergent, low viscosity oil.

I have had resort to none of these with my 1948 Triumph 1800 Roadster. To date, it has recorded more than 120,000 miles; 100,000 came up during the course of a fast trip to Sindelfingen, out by Cologne, back by Paris, over 1,400 miles; petrol (ordinary, not premium) and oil consumption, very carefully measured, came respectively to 25 and just over 1,000 m.p.g., which does not seem to indicate anything radically wrong.

Habitual cruising speed on the flat is 62 m.p.h. by stop-watch (checked); no rebore, original piston rings, pistons, and all bearings. I use a good old-fashioned non-detergent high viscosity Pennsylvanian oil—giving at present, for town and country running, over 1,500 m.p.g. The only real bother I have had has been with the electrics, and that, from the word go.

Brussels, Belgium.

SATISFIED.

Where Bumpers Take Bumps

Problems of New York Car Owner. When my wife bought her A.40 Devon about 10 years ago, Austin sedans were out-selling all other imported cars over here six to one, but today Austins seem to have disappeared completely. I have an idea that the miserable door-latches and flimsy bumpers brought this handsome (in profile) little car into disfavour; with these enraging frailties we have finally decided to part with it—my wife refuses to be seen in a hulk so battered fore and aft! The economy of 35 m.p.g. (Imp.) at 40 m.p.h. (after 35,000 miles) means nothing to her. What I would like to buy now is another

Austin with bumpers fore and aft capable of doing battle on more nearly even terms with parking American battleships. The VW, Volvo and Simca export models, have what would appear in the showrooms to be pretty good armour, or perhaps guard-rails would be a better term, but not the English cars, with the exception of the Vauxhall Victor. We had just about decided to get a Magnette when, looking out of the window, my wife saw across the street a big Mercury back into a parked Magnette and calmly drive away leaving shattered lights and bent grille—not his own. This sort of thing sours the prospective buyer of a small foreign car if he lives in a big city, and it is precisely in the big cities where the small car has its advantages. Is there an English car, something of the order of a Magnette that looks English or Continental but not American, with strong bumpers and if possible, replaceable body parts fore and aft?

New York.

W. H. INGRAM.

Austin-Healey Modifications

Making Room for Luggage. As the well-satisfied owner of an Austin-Healey 100-Six, I was most interested to read the reference to this model in your issue of 16 May, under the heading "Personal Assessment," and later, the full road test in the issue of 30 May.

I bought my car in January, 1957, but have brought it up to date with the new cylinder head, and one or two other slight modifications to the engine. As a result, I get considerably improved performance in acceleration and maximum over the standard model, but have lost nothing in tractability. Indeed, well over half my mileage is driven in commuting to and from business, and one would hardly realize under these conditions that the car had such a potent performance—one can amble along in family saloon fashion.

I fully endorse your Technical Editor's remarks concerning ground clearance, and would sound a note of warning to any lucky future owners. One has to be most careful even when manoeuvring over an ordinary pavement kerb, and occasionally when leaving parking places; too smart a drop down with both front wheels over the edge of a kerb can put a dent in the sump.

The boot is indeed extremely small, but I enclose a photograph [reproduced on this page.—Ed.] showing alternative mounting for the spare wheel, which greatly relieves the problem, and which might help other owners. By extending the rear bumper brackets a little over 4in and providing a cradle between them of light tube, the spare wheel can be dropped in quite happily. It is secured by a leather strap which has a hook at each end to go round the bumper bracket, the strap itself passing right up over the tyre. This may sound crude and I tried it out with some misgivings: however, experience over several thousand miles, including some fast driving on Continental roads, has proved the modification to be thoroughly satisfactory. The movement of weight a little farther back naturally has affected stability a little, but with a bootful of luggage and the family on board this is of no account, as one is not performing the sort of manoeuvres which bring this factor into effect.

By reducing the traditional suitcases to one, and carrying the rest of the gear in canvas zip-top bags, a surprising amount can

Austin-Healey spare wheel mounted behind the bumper to increase luggage space. Details are given in the letter above



be stowed in the boot; in fact, quite enough for a family of four for three weeks. When using the hard top, it is possible to leave the hood at home and if only two are travelling, the back squab can also be lifted out; by laying a piece of light ply-wood over the flat surface presented, the two back seats are bridged and a good deal more luggage space becomes available. Two full sets of golf clubs go in the back quite easily.

You comment, quite properly, on the locking of the car; this has been answered by fitting a Yale lock to each door, but this calls for a competent bodybuilder, and is probably beyond the ability of most amateurs.

I would like to pay tribute to the Healey people at Warwick. They render advice which is not only helpful but extremely prompt, and standard Austin spares seem to be more quickly obtainable from them than anywhere. The 100-Six came when I had given up hope of ever being able to reconcile the problem of owning a car like this when one has two children, and I can advise any wavering purchaser that it more than adequately fulfils all one's desires.

Hoyleake, Cheshire.

A. J. FAIRRIE.

Valley of New Waters

"Thoroughly Worth While." In your issue of 6 December last you published an account of a tour to the Valley of New Waters. I have just been on this journey, a matter of 182 miles all told, and I am writing to tell you how thoroughly worth while we thought the trip. Some time or other I always get around to doing these trips you suggest from time to time, and each one has been really appreciated.

Southampton.

R. V. POOL.

Czechoslovakian Tour

More Experiences. I was most interested in the article by Mr. H. G. Wray on his visit to Czechoslovakia (18 July), as I too have just returned from a holiday in that country with my wife. I agree in general with most of the remarks, particularly those about the extremely drab conditions on first entering the country near Cheb. We returned via Bratislava, and although this is a well-kept city by Czech standards, we noticed the great improvement on entering Austria.

We did not come across any of the super grade petrol mentioned, but found that petrol pumps were frequent enough, although repair shops were very few and far between. I am surprised that Mr. Wray did not notice the fair numbers of Russian Pobiedas, and sprinkling of Ford Anglias, Renault 750s, Fiat 500s and Czech Tatras on the road, in addition to the Skodas mentioned.

THE GAME AND THE PRIZE

"Monte Entry an Additional Award." It is evident from Peter Garnier's comments (The Sport, 1 August) that there is some misunderstanding regarding the Liverpool M.C.'s "Horseman-Monte" Rally on 4-5 October. The first prize is not a free entry in the 1959 Monte Carlo Rally; it is a silver challenge cup and silver replica, as it is planned to make the event an annual one if, judging by the vast majority of support from all over the country, it proves successful. The Monte entry is an additional award to "the highest placed finisher who can avail himself of it." If, for any reason e.g. cancellation of the 1959 Monte Carlo Rally, the award cannot be taken up, then the amount set aside will be devoted to the furtherance of motor sport in some other way.

While I agree with most of the theories expressed, I must point out that Ted Lambert, the originator of the idea and secretary of the meeting, has probably done more for road safety in this country than any other person, and great care has been taken with the preparation. Naturally, keen competition is expected, but the "cut and thrust" driving of the semi-professional as seen in the more important rallies is not anticipated. Penalties are awarded by Standing Supplementary Regulations, and there is a right to refuse entries. The difficult sections will be covered by all during darkness, and will not begin until midnight. There are very few inhabitants on these sections, most of which were covered in a rally held by a very small club between 7 p.m. and midnight earlier this year for very small awards; the entry of 75 was very much over subscribed, there were no complaints, and many letters of appreciation. A good event will always attract a good entry.

I strongly disagree with the suggestion for a scale of awards making the first prize in a National event only sufficient to cover the cost, but this is by the way. The object of the Horseman-Monte is to find a driver who deserves a chance in the Monte Carlo Rally but who, for financial or other reasons, would not otherwise have the opportunity to compete. Surely there can be no more praiseworthy motive.

Liverpool 13.

R. J. KEELEY (Liverpool Motor Club).

We covered nearly 1,000 miles inside Czechoslovakia, staying at Karlovy Vary, Prague, Olomouc, Piestany and a week in the High Tatras at Tatranska Lomnica. The latter would have been very beautiful if it hadn't rained quite so much! Food was first-class throughout. As for drinks, we had mostly herb tea and ersatz coffee, Hungarian red and Roumanian white wine (Czech seemed rather elusive) and excellent light beer.

Mr. Wray did not state how old was the copy of *The Times* produced at the Hotel Pupp, but I suspect it was a copy left by a previous foreign guest; the only English language paper we saw was the *Daily Worker*. We thought how few people spoke English compared with Hungary, which we had visited shortly before the revolution.

I would add that our Ford Consul (in its fourth year) gave us no trouble, in spite of indifferent petrol and some poor roads caused by detours, made necessary through main road bridges being destroyed by the heavy rains during our visit.

Birmingham, 20.

P. E. NEWMAN.

Twin Cam Riley?

Expression of Hope from Hong Kong. It is heartwarming to see that B.M.C. have turned out a Special Equipment MGA, the Twin Cam, a fact which shows the know-how of the B.M.C. back-room boys in adapting a rationalized engine into one of very high performance. As an ex-Riley 2½ owner, I wonder whether this skill can be applied to the Riley Two-Point-Six and One-Point-Five, giving these cars twin o.h.c. with their C and B series engines, and also disc brakes and modified suspension, to make these cars worthy of the Riley marque. No doubt cost will be somewhat higher with these changes, but with high export figures of the MGA there should be very little difficulty in keeping down the price of the One-Point-Five. On the other hand, the price of the Two-Point-Six can be kept down by giving the Austin-Healey 100-Six a modified engine in their special equipment version. All this may never be realized, but one who knows the Riley cannot help expressing his thoughts, with the hope that one day the makers may do something to produce Rileys, as Rileys should be.

Hong Kong.

R. T. M. YANG.

Tail First, Nose First?

"Dangerous Habit" in Garaging. Why do so many people adopt the dangerous habit of reversing out of their home garages into main roads? Surely it is far safer to reverse in and drive out?

Higher Walton, Lancashire.

A. H.

Reply to Peter Garnier. I have just read Peter Garnier's comments (The Sport, 1 August) about the recent practice of giving large value prizes to the winners of British rallies and, as a regular navigator in these events, would like to comment thereon.

For the last two or three seasons at least, the standard of driving required to win a rally of the calibre of the Yorkshire, Jeans Gold Cup, the Wallacey, the Morecambe and some of the more intense "North Wales Rallies" of various clubs, has been far from being a low one. In the North, at any rate, rallies are not easy—and I do not mean purely from the navigational point of view.

Competition between regular competitors up here is already intense. Rally driving is not Grand Prix motoring, but it is quite an art and, moreover, an art which is practised fairly seriously already. To offer large awards is not going to make anyone drive any harder and I, for one, should be as pleased to win the London Rally as the Bolton. On International rallies I have not noticed that anyone motors any harder on the R.A.C. (where there are cash prizes) than on the Tulip (where there are no cash awards as such). The semi-occupational rally crew is already with us, if not semi-professional.

The crew which wins the "free ride to Monte" will be a crew well worthy of doing so. Not all of us get free rides in works teams offered us, and here is a chance to *earn* the next best thing. As for attracting the wrong sort of competitor... well, whatever his morals, he's still got to win to benefit, and cheating or fiddling will not get him to the next control on time!

One more comment; the standard of behaviour on the Bolton Rally (prize a new Austin A.35) was, if anything, higher than usual. Everyone was keen to win, obviously, but, to quote Peter Garnier's predecessor, to win one has first to finish.

I appreciate that Peter Garnier's remarks were made with the good of the sport at heart, but I do feel he is being just a little unfair to the regular British rally competitors, all of whom have the future of the game very much in mind.

Lymm, Cheshire.

IAN J. HALL.

Tunnel to Wales

DURING this year of the Festival of Wales, readers in England who plan to visit the Principality may be interested to learn of a quick and little-advertised way to reach the Land of the Leek from the west and south, and cut down the road journey.

I had made the journey several times via the orthodox channels—on the Beachley-Aust Ferry or the long road up to Gloucester—and, while the former route saves time, it leaves one at the mercy of the tide and the length of the queue for ferry space ahead. The disadvantage of the Gloucester route is its length—50 miles more than the direct route over the river.

Before my last trip to Wales, I had heard rumours of a third route—by train through the Severn Tunnel—but details were hard to come by. The local railway, motoring organizations and travel agents seemed to have little knowledge of the details and, finally, I wrote direct to British Railways at Piling, near Bristol. They supplied train times, costs and gave me a reservation number. This way seemed to obviate the drawbacks of the alternative routes and so, last Christmas Eve, I left Bournemouth at 2 p.m. for Cardiff.

We were given a friendly welcome at

Piling by the station master, who escorted the family into a warm waiting room, then guided my car up a ramp and along a line of flats. Once on my particular flat, the station staff fixed beams fore aft and chained the car by its bumpers to them, covering it with a tarpaulin for its short journey.

I was advised to reverse on, to make disembarking easier on the other side, which I did, and very soon cars and passengers were off on the 15-minute trip under the Severn. On arrival at Severn Tunnel Junction, the beams and tarpaulin were removed and, within ten minutes, we were on the last lap of our journey to Cardiff.

We had to leave Cardiff for the return journey at 8 a.m. in order to catch the 9.15 a.m. from Severn Tunnel Junction and, once again, we were transported through the tunnel with the minimum of fuss and delay. I have no hesitation in recommending this service to other travellers to Wales from London and the



South of England—especially those with children who do not take kindly to long journeys.

I feel that if this service by British Railways was more widely known and used, fares could be reduced still more and additional trains put on at times more convenient to holiday-makers.

At present each day there are two trains each way with accommodation for cars, and an additional one on Monday mornings. Recently British Railways announced a reduction in the car transport charges, dispensing with a rising rate for varying horsepower and substituting a flat rate of 15s single, £1 5s return. Passenger return fares are 2s 4d second class, 3s 6d first class.

N. H. S.

Motor Racing Circuits of Europe, by Louis Klemantaski and Michael Frostick. Published by B. T. Batsford, Ltd., 4, Fitzhardinge Street, Portman Square, London, W.1. Price £1 1s.

Louis Klemantaski's superb examples of the art of photographing racing cars in action are always worth close scrutiny. His ability to put over the atmosphere of a racing scene is particularly valuable in this book, which presents pictures of the principal circuits of Europe. Dramatic photographs of races in progress, taken from many different points on each circuit, are sometimes accompanied by shots of sections and bends as the driver sees them from the cockpit.

Excellent drawn circuit maps are marred only by the omission of actual lap distances, though each mile is marked off on British circuits, each kilometre on Continental circuits. Michael Frostick is critical and outspoken in his commentaries, decrying the lack of character in British circuits (save for Oulton Park), and the practice of "improving" the classic courses on the Continent. Also he revives many memories of outstanding performances on the circuits and presents the enthusiast who plans to visit them with a valuable background. To those who cannot manage to get there, this book can greatly increase the enjoyment of reading race reports, for a working knowledge of the circuits on which the major Grand Prix and sports car races are held can be had, together with a true impression of their status in motor racing history. Errors are few—Moss is credited with a lap of 83.6 m.p.h. at Monte Carlo—and are forgiven amid a profusion of useful information.

The Book of the Rover, by W. A. Gibson Martin. Published by Sir Isaac Pitman and Sons, Ltd., Pitman House, Parker Street, Kingsway, London, W.C.2. Price 6s.

A new edition of a volume in Pitman's Motorists Library, this is a useful guide to the owner of any Rover four-cylinder



car of 1938 to 1957, or six-cylinder from 1950 to 1956; it includes also a reasonable amount of information on the specialized design and functions of the Land-Rover. It may be that few Rover owners would attempt more than a top overhaul themselves; certainly this book does not attempt to lead them farther than that, but what information it does give is well-arranged and indexed.

Standard Cars, by T. P. Postlethwaite and I. Walton. Published by C. Arthur Pearson, Ltd., Tower House, Southampton Street, Strand, London, W.C.2. Price 10s 6d.

Maintenance and repair of Standard cars from 1936 are covered in this volume, which is conveniently in two main sections, one dealing with side-valve engined models, and the other, overhead-valves. Its 250 pages include a lengthy and well-detailed index which is a great help in tracing particular details of information.

The World's Automobiles, 1880-1955. Published by Temple Press, Ltd., Bowling Green Lane, London, E.C.1. Price 15s.

An invaluable reference book in *The Autocar's* editorial offices for many years has been a copy of "The World's Automobiles, 1881-1931," by G. R. Doyle, the copy in our possession being "amended by the author for the use of the Editor, *The Autocar*," in September, 1942. The second edition now available contains this and further *addenda*, has been brought up to date, and is bound and printed to a higher standard.

The book opens with a brief chapter on the birth of the automobile, followed by a light-hearted, random commentary on motoring matters. In the pages that follow nearly 4,000 makes are catalogued in alphabetical order, and their motive means include steam, electricity, compressed and liquid airs, acetylene and even clockwork. Where possible, the productive dates of the manufacturers are given, together with footnotes, often informative—often amusing.

At the end of each alphabetical section is a key to numbers bracketed after some makes; hence one learns that the Rochet was based on the Rue de la Folie Renault in Paris, and the key reveals that this was the road where the two official guillotines were said to be housed in a shed. Who, without this book, would know that the Thames Ironworks, where Thames cars and commercial vehicles were made from 1906-1911, were the origin of the Millwall Football Club?

Post-war whimsies such as the British Gordano (1947-1949) and the American Tucker (now making the Sno-Cat mountain sledge) achieve immortality.

This fascinating publication is packed with knowledge that can be found nowhere else, and its unorthodox style and presentation excite the motor historian's palate without over-taxing his digestion.

Map of the Three Rivers Country in the North East of England. Published by the North East Industrial and Development Association, 9, Eldon Square, Newcastle-upon-Tyne. Free.

On this folder are a map of the areas of Northumberland, Durham and the North Riding, and on the reverse, a list of main features of interest. National parks, ancient churches, recommended places for good fishing and bathing, and golf courses are all marked on the map. This folder may be found very useful by those holidaymaking in the areas covered.

National Benzole Snetterton

M. J. C. TAYLOR

BREAKS 1,100 C.C.

LAP RECORD

FOR last Saturday's National Benzole trophy meeting at Snetterton there was a well-balanced programme, efficiently organized by the West Essex C.C. Spirited and skilful driving in several of the races helped to make this one of the best meetings at Snetterton this season, and it was a pity that spectator attendance was low. With the exception of the W. Lyons handicap for Jaguars at the end of the programme, all races were ten-lap scratch events, and among the most interesting of them was the unlimited sports car race. F. Warnell's A.C. Ace led initially, followed very closely by A. Semenov's Jaguar XK140 and R. Brightman's A.C. Aceca. On the fourth lap the Jaguar failed to turn up, and R. A. Gibson's Jaguar XK120 moved up into third place behind the Aceca. L. J. Coe's Triumph TR3 (with twin Weber carburetors) stood fourth, trying gallantly to pass the XK120.

Then oil started to foul the clutch on the Warnell A.C. Ace, putting the car out of the race, and Brightman's Aceca went into the lead. Shortly afterwards Coe managed to overtake into second position, which he held until the very last lap when an airlock blocked the fuel line. Gibson (Jaguar) moved up to second, and one of the American competitors at the meeting, H. G. Walldorf, whose left-hand-drive TR3 had stood sixth at one stage, finished third.

In the main race of the meeting, for the National Benzole trophy, J. Bekaert's H.W.M.-Jaguar was in front for the entire race, and recorded the fastest lap at 89.83 m.p.h. Hard on his heels, and performing remarkably well, was M. J. C. Taylor in a Lotus. His fastest lap tied with the Jaguar at 89.83 m.p.h.—provisionally breaking the 1,100 c.c. record for the circuit. J. Campbell-Jones (also in a Lotus) was second in the 1,500 c.c. class, and a creditable third in the general classification. Two other Lotuses were ahead of the next (second in its class) Jaguar.

P. Boshier-Jones (Lotus) headed the strange mixture of cars in the 1,172 c.c. event, while A. R. Wershat held the spectator interest by threatening to overtake for four laps. Then he began to drop back, the engine overheating because of water leakage from the radiator, and R. A. V. Staples (Lotus) passed into second place. Slowing still more, Wershat allowed D. Hitchen's Lotus to go ahead, leaving him fourth, but on the last lap he made a final red hot sprint and finished third.

It had been a dry, though cloudy, afternoon, but during the last event—the Jaguar handicap—light rain started to fall, quickly making the track treacherous. D. W. A. Chamberlain (XK140) and W. P. Sheppard (XK120) were among the last to start, but each had one credit lap. Sheppard quickly fell back, but Chamberlain held his position well, driving deceptively rapidly and cornering perfectly; he won the event at 78.41 m.p.h. Given a dry track the scratch man, P. M. Salmon (C-type), might have caught up, but as it was he finished second, just four seconds



In the line-up for the W. Lyons Jaguar handicap, the two cars on the right of the picture had a start of 20 seconds and one lap. Rain on the circuit placed faster cars at a disadvantage, and D. W. A. Chamberlain (Jaguar XK140, centre) won the event

behind Chamberlain. A. Semenov (XK140) circulated consistently well and finished third. R. A. Gibson (XK140) and J. B. Rodger (D-type) both skidded on the wet surface, and Rodger's car hit the bank, causing minor damage.

One contributory reason in the success of this meeting was that there was no attempt to cram too many events into the programme. Races ran well to time, and the meeting ended before there was any tendency for spectator interest to flag.

RESULTS (lap distance 2.71 miles)

Scratch races: sports cars up to 750 c.c. (10 laps): 1. L.R.M. 747 (R. D. Lee), 24min 3.5sec, 67.25 m.p.h.; 2. Austin 747 (J. Wilks), 3. Austin 750 (R. Lewcock). Fastest lap: L.R.M. 747 (R. D. Lee), 67.83 m.p.h. Lotus cars under 1,100 c.c. (10 laps): 1. 1,098 (M. J. C. Taylor), 18min 44.6sec, 86.45 m.p.h.; 2. 1,098 (J. Campbell-Jones), 3. 1,098 (F. Warnell). Fastest lap: M. J. C. Taylor and J. Campbell-Jones, 1min 50sec, 86.36 m.p.h. Sports cars (10 laps): up to 1,500 c.c.: 1. MGA 1,489 (W. J. Smith), 22min 48.2sec, 71.04 m.p.h.; 2. MGA 1,489 (D. N. Gouk), 3. Buckler 1,172 (C. M. Egerton). Fastest lap: MGA 1,489 (D. N. Gouk),

2min 12.8sec, 73.2 m.p.h. 1,501 to 3,000 c.c.: 1. A.C. Aceca 1,991 (R. A. Brightman), 21min 9.8sec, 76.58 m.p.h.; 2. Triumph TR3 (H. G. Walldorf), 3. Atalanta 2,553 (A. G. Oliver). Fastest lap: A.C. Ace 1,971 (F. Warnell), 2min 2.8sec, 79.15 m.p.h. Over 3,000 c.c.: 1. Jaguar XK120 3,442 (R. A. Gibson), 2min 22.6sec, 75.78 m.p.h.; 2. Jaguar XK120 (W. P. Sheppard), 2min 3.5sec, 79.08 m.p.h.

National Benzole trophy for Appendix C sports cars (10 laps): up to 1,500 c.c.: 1. Lotus 1,098 (M. J. C. Taylor), 18min 27.6sec, 87.76 m.p.h.; 2. Lotus 1,098 (J. Campbell-Jones), 3. Tojeiro 1,100 (A. Stacey). Fastest lap: Lotus 1,098 (M. J. C. Taylor), 1min 48.2sec, 89.83 m.p.h. (lap record). Over 1,500 c.c.: 1. H.W.M.-Jaguar 3,442 (J. Bekaert), 18min 19.4sec, 88.41 m.p.h.; 2. Jaguar C-type 3,442 (P. M. Salmon), 3. Jaguar C-type 3,442 (P. J. Sargent). Fastest lap: H.W.M.-Jaguar 3,442 (J. Bekaert), 1min 48.2sec, 89.83 m.p.h. Sports cars up to 1,172 c.c. (10 laps): 1. Lotus 1,172 (P. Boshier Jones), 21min 36.6sec, 74.97 m.p.h.; 2. Lotus 1,172 (R. A. V. Staples), 3. Special 1,172 (A. R. Wershat). Fastest lap: Lotus 1,172 (P. Boshier Jones), 2min 4.8sec, 77.89 m.p.h.

Handicap race: W. Lyons trophy for Jaguar cars (10 laps): 1. XK140 (D. W. Chamberlain), 21min 39.6sec, 78.41 m.p.h.; 2. C-type (P. M. Salmon), 3. XK140 (A. Semenov). Fastest lap: C-type (P. M. Salmon), 1min 56.4sec, 83.5 m.p.h. Fastest lap of the day: Lotus 1,098 (M. J. C. Taylor) and H.W.M.-Jaguar 3,442 (J. Bekaert), 1min 48.2sec, 89.83 m.p.h.

After two retirements ahead of him R. Brightman moved up from third to first place in his A.C. Aceca and won the unlimited sports car race at 76.58 m.p.h.



Looking Backwards

IN view of the present universal use of cars both for pleasure and commercial purposes, it is difficult to believe that only a little over 50 years ago it was possible to travel from London to Glasgow along the main roads of the country without meeting another car or being passed by one. Such an experience actually happened to me in 1901 when, on a $3\frac{1}{2}$ h.p. Benz, and accompanied by my wife and a friend, I decided to go to Glasgow for the Exhibition. The absence of motor traffic might suggest that the journey was uneventful, but it must not be forgotten that in those early days motorists experienced considerable difficulty in passing horse vehicles.

There was even an occasion when, coming round a bend on a narrow road where there was hardly room for two cars to pass, we saw, some 50 or 60 yards away, a heavy farm horse attached to a farm wagon coming towards us, the wagon swaying dangerously from side to side. It was obvious that the horse had bolted, and a smash seemed inevitable, but I pulled the car into the side and pushed my wife over a hedge—and the horse fell when a few feet away from us. Quite a number of people appeared from the farm, and as they were speaking in Gaelic we thought that they blamed us for the horse having run away. Fortunately, however, it was simply a case of the horse having taken fright long before it came in sight of us.

Petrol from Chemists

Another difficulty we had to contend with was in securing supplies of petrol, which in those days was obtainable only at chemists' shops. There was, as a matter of fact, a very limited number of stockists in the country, and to aid motorists Messrs. Carless, Capel and Leonard used to print a list of names and addresses in their booklet. If, as sometimes happened through the tank being small and detours being necessary, we ran out of petrol, it often meant pushing the car to the nearest town, and then making enquiry at all likely chemists' shops.

Our car would now be looked upon as a glorified motor perambulator, but 50 years ago it was one of the most reliable cars on the road, and the manager of the North Eastern Hotel in Glasgow, where we stayed, congratulated us on having one of the smartest looking cars that he had ever seen. This car, as some motorists may remember, had two belt drives and a Crypto gear. No reverse was necessary; in order to point the car in the opposite direction the passenger was instructed to pick up the front portion and turn it round. This was not difficult as the engine was at the back, but it was somewhat of a tax on the strength and patience of the passenger to hold the car in an upright position for some length of time whilst the owner refixed the silencer, which had a habit of dropping off.

The two belt drives were very efficient so long as the belts kept dry and did not slip. When they did slip, we found the best way to correct the fault was to arrange for the passenger to take a bunch of cotton waste treated with resin, and to put his arm through the spokes of the wheel and press the waste on the belts as they revolved. It required a seasoned

passenger to carry out this operation which was, of course, attended with a certain amount of risk. The Crypto gear was so low that the car would climb the steepest hill, but perchance the engine gave out we carried a baulk of timber, so that when ascending a very steep hill the passenger could walk behind the car with the timber on his shoulder, to put it behind the wheels in the event of the engine stopping. The brakes were external ones, and not very dependable.

As a rule the Crypto gear was extremely efficient and reliable, but it was very slow—a hill two miles long would take over an hour to climb, so when a car showed signs of refusing to hang on to the low speed belt the passenger had to drop overboard and run alongside.

Although the distance from London to Glasgow is roughly 400 miles, we calculated that we travelled at least 500 miles owing to the need to make detours in search of petrol and to avoid dangerous hills, and it is a very reasonable estimate that our passenger on this journey rode about 350 miles, and ran the other 150 miles. The car had four wire wheels, two large and two small, shod with solid tyres. There were two seats at the front and there was room for two to sit at the back, but the position was precarious.

It is strange to think that in those days we used to discuss with apprehension the growing tendency for cars to be fitted with pneumatic tyres. We agreed that these might make for comfort, but we thought that this could not be justified owing to the risk of punctures.

Another point of debate was the suggestion that it would be better to put the engines in the front instead of the back. At the time we thought this was a bad practice, owing to the danger of injury through collision, and it is rather extraordinary that at the present time there is a tendency on the part of manufacturers to revert to the practice which obtained in the case of the old $3\frac{1}{2}$ h.p. Benz. Starting the engine was accomplished by pulling over the flywheel. I believe a crank was supplied with the car, but it was never used. A good deal of knack was required in order to give just the right amount of jerk to the flywheel, and retarding the spark was very important, or there was a serious risk of a backfire which might result in a broken wrist.

When we arrived in Glasgow we could find no garage, and although we went from livery stable to livery stable, not one of the proprietors would entertain putting up the car, which they looked upon as some kind of infernal machine. Eventu-

ally we decided that we would run out to a small town outside Glasgow, where we might find a decent hotel with an unused stable in which the car might be housed, but some three miles outside Glasgow we came upon a tramway depot, and received a warm welcome there.

Motoring was not a very comfortable experience in the old days; cars were not fitted with hoods or enclosed bodies, and there were no windcreens. We had to rely upon coats and rugs to keep dry, and on carriage candles for illumination.

On one occasion on our return journey we had a very bad trip through torrential rain through the lowlands of Scotland, and when we came to a small village we decided to stop. There was a small inn in the place, and this was not very inviting as, it being Saturday night, all the labourers were carousing in the bar. Our passenger, however, got the right side of the landlady, who fixed us up with comfortable quarters out of hearing of the noise, and prepared a meal which was far better than we had any hope for.

Celebrating on Five Shillings

After getting into dry clothes and smelling the dinner in preparation, we decided that we ought to celebrate the occasion by having a bottle of wine, and the landlord said he thought he had some bottles in the cellar.

After a long search he emerged from the darkness with a bottle of Moselle, but as we fancied champagne we urged him to make another search. Finally our passenger descended a steep ladder with a box of matches and eventually returned with a large bottle of Heidsieck. I think the vintage was 1887; I know it was a bottle for which you would have to pay 25s or 30s in a restaurant. Before cutting the wire we thought it as well to ask how much the bottle would cost, and were relieved when our host suggested that we could have it for 5s! It was not until we were well on our way south on the following day that we realized what a mistake we had made in not offering to take the contents of the cellar at so low a valuation.

It was not unusual when we were passing through a village for the whole population to turn out in order to cheer our progress, motor cars being so seldom seen, and, of course, in order to complete the picture we had to study very carefully the details of our dress. We wore leather peak hats with adjustable flaps to protect our ears, large goggles and leather coats, riding breeches and pigskin leggings.

W. S. A.





The Sport

By PETER GARNIER



ACCIDENT PROBLEMS

CONTINENTAL NEWS

JUNIOR FORMULA

NOT UNNATURALLY, I suppose, a great deal is being spoken, and written, about motor racing accidents just now. The Pope has said, unequivocally, that motor racing must stop; Fangio, it is reported, has said that the cars are getting too light (I doubt, in fact, if he ever said anything so thoughtless; the Ferraris, to which presumably he refers, are by no means the lightest of present-day G.P. cars); most sensible of all was Canon Rees-Jones, vicar of Stone, near Kidderminster, who, at Peter Collins' memorial service last Sunday, drew attention to the great responsibility of those who manage circuits or run races.

I do not think there are any more accidents, race for race, than there have been in the past; it is merely that there are many, many more races. There is also greater newspaper coverage which unfortunately tends, in some cases, to dwell on the accidents. Nowadays, with Bristol Freighters in which the cars can be whipped over to the Continent in a few minutes, drivers are performing in at least twice as many events as they used to, before the war. The ultimate in this dashing around was when, less than 24 hours after the British G.P. at Silverstone,

several drivers were at work at Caen. Possibly it is not too much to race two days running, but when it entails intensive travel in between, I think it might be.

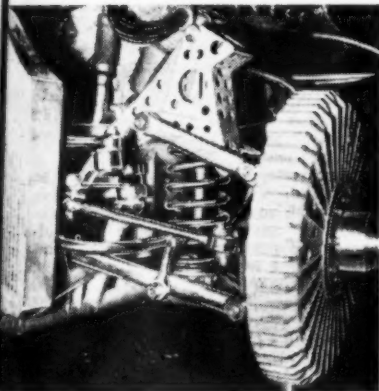
It is up to the C.S.I. to make a decision on this point—and, if they feel there are too many events on the Calendar, take steps to reduce the number—and, more important, *see that their rulings are enforced*. At the moment, the rules say that there cannot be two *grandes épreuves* within 14 days of each other; they also say that a National or National Open G.P. may not be run within seven days of a Priority event. There have been several examples of these rules being broken this season . . . and other rules.

Then there is the question of the circuits themselves, and the responsibilities of those who design, and subsequently manage them—referred to in Canon Rees-Jones' address. Though much has been said about the featureless nature of the airfield circuits in this country—and much in favour of the "natural" road circuits of Europe, the airfield circuits have the tremendous advantage of space at the edges of the road. It is on this that drivers have the chance to recover their cars—preventing an Incident from de-

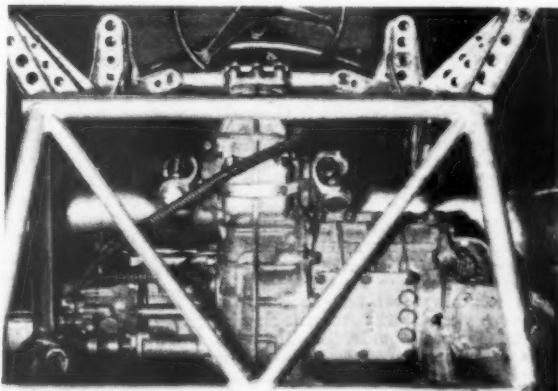
veloping into an Accident—and, though one is naturally reluctant to boast, the result has been that the British circuits have a remarkably good record. It may be necessary to go round the Continental circuits systematically, with an experienced racing driver at the wheel and, corner by corner, note everything that he might consider a source of danger, subsequently removing it. It may be necessary to clear areas of trees on the outside of the stretch following a corner; it should be possible to estimate within a few yards either way, exactly where an accident would occur. It definitely would be necessary to fill in ditches alongside the road on certain circuits—as at Rheims.

Many argue the other way—that it would save the lives of mountaineers if the Matterhorn were bulldozed flat; then they could not fall off it. Leave things as they are, they say. This, of course, is nonsense; so long as the Matterhorn is there, you would not send climbers up it without ropes, and wearing gym-shoes. Equally, the most venturesome hydroplane pilot wouldn't leave his Mae West behind, or the fighter pilot his parachute.

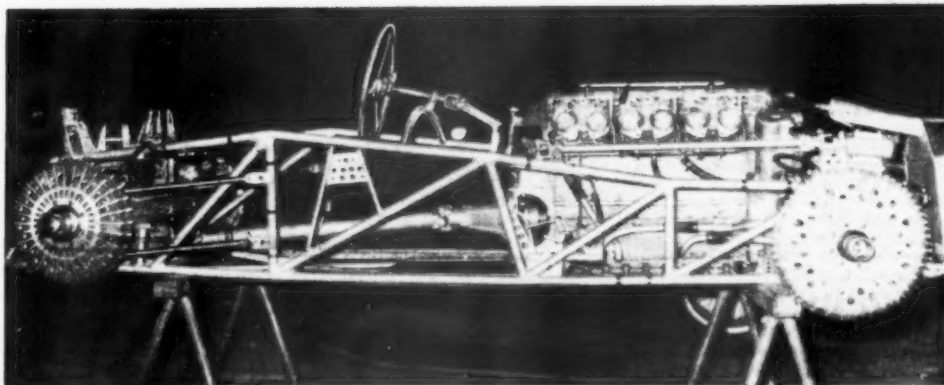
It is true to say that many of the safety measures which have been taken at racing



The second of the new, lightweight Maseratis is being prepared at the factory in time for Portugal; it will be driven by Carroll Shelby. Coiled springs in front, and the transverse leaf spring at the rear, are retained, but telescopic dampers replace the previous vane-type. Brake drums are larger in diameter, and narrower



Space frame is similar to the lightened version used for last season's 250F cars; front coil springs are larger in diameter, front and rear tracks are 2in narrower, and wheelbase $1\frac{1}{2}$ in shorter, than in the 250F; transmission layout is similar to that of the older cars, and a weight saving of 210lb has been achieved



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circuits—surface improvements, easing of corners, and the like—result merely in increased lap speeds; the danger returns, at a higher speed. The corners may then be eased again—until the circuit becomes an Indianapolis, or worse still, a drag-strip. Spa is an example of a circuit that has developed beyond the speed of current G.P. cars: at this year's European G.P. the times of the four fastest cars in practice were within a mere 0.6sec.

The only limiting factor which can be applied equally to all contenders seems to lie in the cars themselves, and here we are on very delicate ground; lack of speed, and therefore spectacle, will keep spectators away. Though in the past, various methods of limiting the speeds—engine size, weight, fuel consumption, and so on—have been applied, they have not been successful; we have witnessed almost annual increases in lap speeds. Unless these artificial limitations are taken to ridiculous lengths, which would be to the detriment of the sport, this pattern of steadily increasing lap speeds will go on. It must be remembered that this trend is derived mainly from improvements in road-holding (which improves safety), for the pre-war monsters of the Mercedes and Auto-Union domination, although they had a much higher maximum speed than the current cars, would not be as fast around the present-day circuits, nor indeed anything like so safe, as modern G.P. cars.

Thus, it comes back to the circuits themselves. The organizers must spend their money on improving the safety angle, rather than striving to increase the lap speeds—and, incidentally, drop immediately this inter-circuit battle to justify the claim "I have the fastest circuit in Europe." I am certain, too, that everyone—except, perhaps, a few drivers who are undoubtedly making very big money—would be delighted to see the Calendar considerably whittled down.

IT SEEMS that Enzo Ferrari will have but one formula 1 car at Oporto on 24 August—at least, that is the story in Modena as this column went to press. On the surface, things look normal enough at the Ferrari works, and as soon as possible after the German Grand Prix, chief tester Severi was out on the Modena Autodrome, trying a G.P. car fitted with bigger brakes; at present experiments are being made with 51mm shoes, instead of the usual 48mm size. There is no doubt that the death of Peter Collins has meant very much indeed to Enzo Ferrari himself—but there is no doubt, too, that Scuderia Ferrari will carry on as before. Phil Hill will be given one of the formula 1 cars for the Italian G.P., on the road circuit at Monza on 7 September; Hill is due at Modena to start training both on the Autodrome and at Monza during the next fortnight. Osca driver, Cibanica, is to be given a trial, with a view to possible inclusion in the Ferrari team.

A second, lightweight, 1958-type 250F Maserati single-seater is under construction at the Maserati works, and will be driven by Carroll Shelby at Oporto under the colours of Scuderia Temple Buell. Masten Gregory was down to drive the car, but failure of a muscle to heal properly after his Silverstone accident will keep him out of the Portuguese G.P. A wealthy American has ordered a replica of the Maserati coupé that Stirling Moss

drove at Le Mans last year—and it is said that at least one more example has been ordered, and possibly a third as well. Top speed of this slightly more comfortable version of Moss' car is said to be 175 m.p.h., and price? Again, according to rumour, it is 15,000 dollars. The only major change is that the chassis length has been increased by 5in. The prospective owner has requested that a heater be installed, to keep his feet warm during the American winter. Judging by Moss' remarks, after the Maserati's retirement at Le Mans last year, a refrigerator would be more appropriate. This car is illustrated on page 229.

Fangio will probably drive in several South American races this year and next. He has been offered a considerable amount of money to drive in the New Zealand Grand Prix this winter.

THE DRIVERS' ASSOCIATION—U.P.P.I., about which little has been heard recently—is to meet at Oporto on 22 August, points for discussion being starting money, and the question of U.P.P.I. representation on the C.S.I. This last point seems an exceedingly good idea; apart from injecting a little new blood (and of the right blood group, too) into this organization, it should result in a more realistic approach to some of the problems of motor sport. Pity there can't be a U.P.P.I. representative from each of the member countries, as well as the one from the national body.

IN PREPARATION FOR the gala meeting at Brands Hatch on Saturday, 30 August (and after an absence of around four years from the Kent circuit), Stirling Moss has been practising in Rob Walker's formula 2 Cooper-Climax. Best lap time was 56.2sec—the formula 2 official record being 58.2sec (D. Taylor with a Lotus, and S. H. Jensen, in a Cooper, both having recorded this time).

DAVID MURRAY writes to say that the three dark blue Ecurie Ecosse D-type Jaguars are to be sold—offers to D. M. at 8, Merchiston Mews, Edinburgh, 10; telephone Fou. 6673 and 2785.

There is no official word as yet from the Jaguar factory concerning a new competition car—though it has been common knowledge for some time that there is something "on the stocks." Until that "something" materializes—which may well be a long time hence—it looks as though Ecurie Ecosse will be using either Lister-Jaguars or Tojeiro-Jaguars during the 1959 season. At least, then, they will still be using Jaguar engines.

RESULTING FROM the questionnaire sent to members by the Monte Carlo Rally British Competitors' Club, the committee has worked out a rally time-table which, it appears, would suit most competitors. Monday: Leave starting controls; road section begins. Tuesday and Wednesday: Road section continues. Thursday: A.m. arrive at point "X"; a.m. plus 3hr, depart on the final Classification Test, arriving at Monte Carlo from around 10 a.m. onwards.

Point "X" needs a little explanation. It appears to be the general wish of competitors that the organizers should select a town, village, or suitable spot, approximately six to eight hours from Monte Carlo by secondary roads. This would avoid the triumphant arrival at Monte Carlo at the end of the road section, the subsequent setting out on the Classifica-

tion Test, and the second, less triumphant arrival when it was all over. A first road book, exactly as at present, would lead competitors to Point X, where a second book would be issued after a neutralization period of, say, two hours. This would allow competitors whatever time was left to them after their arrival (two hours if they were on time) in which to service the car, and obtain fuel, oil and food. These could be organized in a sensible manner, throughout the town—avoiding thereby that ridiculous scamper last year, when all the manufacturers, accessory people, tyre firms and others had to set up shop on the narrow pavement adjacent to the start, with a cliff behind them and a succession of Shelsley Walsh get-aways a few inches in front. The Arrival Control, it is suggested, should be put at the "IN" side of the town, and the Departure Control at the "OUT." This would avoid the dangerous "Menton G.P." which offended so many people last time—not the least of whom the drivers themselves.

Finally, the proposed time-table cuts down the long, drawn-out period between the end of the rally and the gala dinner—a period during which Monte Carlo tries to part the competitors from what's left of their money, and during which several drivers got fed up last year and went home. I hope that the organizers adopt the proposals of the M.C.R.B.C.C.

THE NEWLY FORMED Road Racing Division of the United States Auto Club—in which Carroll Shelby and Paul O'Shea are among the first American drivers to apply for competition licences—has recommended to the National Contest Board of the Sports Car Club of America that it withdraw its ban on the 1959 Nassau Trophy races. In a letter sent to each member of the S.C.C.A. committee, the Road Racing Division expresses the opinion that the Nassau race should not be considered a strictly professional venture, in view of the organizers' efforts to comply with the S.C.C.A. rules. The Road Racing Division states that, in its opinion, the continuation of the S.C.C.A. ban serves only to deprive U.S. drivers of an opportunity for an enjoyable race in mid-winter, and the chance to meet in competition many world-famous drivers from other countries.

A valid argument, used by the Road Racing Division, is that if the S.C.C.A. can make an exception of Sebring—allowing its members to compete in this event in which prize money is awarded—then it should make the same concession for the Nassau race, so long as the S.C.C.A. members obey the Club's financial remuneration rule.

ORGANIZERS OF the Viking Rally (counting for the European Rally Championship; 18 to 22 September) have introduced a "Tourist Class" for the event. This is intended to give the rally an appeal to the less serious-minded element; incidentally, British visitors to Norway no longer need a carnet. All you need is a driving licence, the log-book, a green insurance card, and a G.B. plate

RELIEVED OF the responsibilities of managing Fangio—if, indeed, the World Champion has hung up his helmet for good—Giambertone is giving considerable attention to Italy's Junior Formula. Races are to be held for these cars at Chieti, on 30 August; at Monza on 7 September (at the time of the Italian G.P.); Salerno on 14 September; Syra-

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cuse on 28 September, and Modena on 5 October. Though one or two of these events will be curtain-raisers to more important races, the one at Modena replaces the event for formula 1 cars. Total available prize money at Modena is to be three million lire, and, in lieu of starting money, each competitor is to receive 50 lire per kilometre travelled to and from the meeting—which seems a fair way of working it out.

These events will be run as two heats and a final, 24 cars starting in each heat, and the eight fastest from each moving on to the finals; the races will be open to

foreign entries. As stated in this column last week, there is to be a Junior Formula event on the day before the Portuguese Grand Prix (24 August), the Portuguese also being interested in this class of racing. Their rules are the same as those laid down by the Italians, but instead of the clause that says "Components must be from production cars of Italian manufacture," they say "... of European manufacture."

THE SCARAB Mark I, Lance Reventlow's prototype sports-racing car, which, incidentally, is a very fine-looking machine and uses Hallibrand wheels, has scored its first win—at Santa Barbara. Reventlow and the car are hailed as America's best hope for a Le Mans win.

COMING SHORTLY

AUGUST 16.—Jaguar D.C., sprint meeting, Wellesbourne Aerodrome, near Stratford-upon-Avon.

16.—750 M.C., Six-Hour Relay race meeting, Silverstone, 1 p.m.

16.—Arley M.C., Sporting Sortie, Old Bell, 11 a.m.

16.—Cheltenham M.C., rally, Coronation Square, Princess Elizabeth Way, 8 p.m.

17.—Yorkshire S.C.C., B.A.R.C., and East Yorkshire C.C., autocross, Wharfedale Grange, Harwood, 2 p.m.

17.—East Anglian M.C., autocross, Wolves Hall, Tendring, near Colchester, 2 p.m.

CLUB NEWS

Berwick and D.M.C.—Results of the Sprint Meeting, held jointly with the Border M.R.C. at Winfield on Sunday, 27 July, are as follows:

Class 1: 1. Sunbeam Rapier (A. W. Cohen); 2. Riley One-point-Five (G. P. Harrison). **Class 2a:** Modified saloons up to 1,500 c.c.: 1. Ford Anglia (G. A. Percival); 2. Sunbeam Rapier (A. W. Cohen). **Class 2b:** Modified saloons over 1,500 c.c.: 1. Porsche 1,600S (J. Clark); 2. Porsche 1,600S (I. Scott-Watson). **Class 3a:** Sports Cars up to 1,500 c.c.: 1. Lotus-Ford Club (A. J. Korczymski); 2. Lotus-Ford (D. S. Thompson). **Class 3b:** Sports cars 1,501 to 3,000 c.c.: 1. Porsche 1,600S (J. Clark); 2. Austin-Healey 100S (J. B. McAdam). **Class 4b:** Racing cars over 500 c.c.: 1. D-type Jaguar (J. Clark); 2. D-type Jaguar (J. A. Somerville).

B.A.R.C. (S.W. Centre).—The results of

the gymkhana held at Barton Stacey, Hampshire, on 20 July, were as follows:—

Event 1: 1. (tie) Ford Consul (P. Scott) and Vauxhall (G. Turner), 21sec. **Event 2:** 1. Jensen 541 (J. Hosier), 40; 2. Ford Esquire (A. Robbings), 54. **Event 3:** 1. M.G. (G. Cohen), 24.5; 2. MGA (M. Hosier), 27. **Event 4:** 1. Triumph TR3 (B. Osborne), 20; 2. Jaguar 3.4 (L. Lindley), 21.5. **Event 5:** 1. Ford Anglia (B. Blundell), 85 faults; 2. M.G. (G. Cohen), 87. **Event 6:** 1. Ford Esquire (A. Robbings), 19sec. **Event 7:** 1. Lotus (B. Luft), 18.75sec; 2. A.C. Riley (B. Palmer), 19sec. **Event 8:** MGA (M. Hosier), 35sec; 2. M.G. (G. Cohen), 35.5. **Event 9:** 1st team: Triumph TR2 (L. Lindley); Triumph TR2 (D. Henderson); Triumph TR3 (B. Osborne), 30sec.

Forces M.C.—The results of the driving test meeting held at the Army Mechanical Transport School, Bordon, were as follows:—

Shell Mex and B.P. Trophy: Triumph TR2 (G. D. Lindley); Runner-up: MGA (P. O. John Lovell); Third: Triumph TR3 (Capt. O'Connell). Fourth: Ford (J. B. Morley); Special Award: Triumph TR2 (G. D. Lindley).

RACE AND RALLY REGULATIONS RECEIVED

Bristol M.C. and L.C.C.—Mendip Petit Prix, Saturday, 30 August; to be held on the Castle Combe circuit at 3.30 p.m. Competitors will be required to complete a given number of laps of the circuit at a moderate average speed, and complete nine pit stops against the clock. Event is open to: Burnham-on-Sea M.C., Bristol Aeroplane Co. M.C., Westinghouse M.C., Stroud and District M.C., Cirencester C.C., and the S.W. Centre of the M.G.C.C. Entries to G. A. Howell, 3, Eastwood Road, Bristol 4, by 23 August.

Nightmare Rally, 5-7 September, to be held over a 140-mile route in Somerset and Gloucestershire; starting from the Ridgeway Garage, Whitchurch, Bristol, at 11 p.m. Open to members of the Burnham-on-Sea M.C. as well as the promoting club. Entries to Mrs. H. Liddon, c/o The Bridge Motor and Engineering Co., 62, Hampton Road, Redland, Bristol, 6.

M.G.C.C.—Northern Rally, run by the three Northern centres of the Club, on October 3 and 4; this is a qualifying event for the B.T. and R.D.A. Silver Star Competition. More than 40 of the leading clubs are invited, so that the limit of 120 entries will quickly be reached. Regulations and entry forms obtainable from G. H. Smith, 7, Limegrove, Limefield, Bury. Entries (at £2 2s) open until 20 September; at £3 3s until 27 September.

Huddersfield M.C.—Driving Test meeting on Sunday, 31 August, starting at 2 p.m. on the Parade Ground of St. Paul's Street Drill Hall, Huddersfield. Entries, limited to 40, to A. F. Dick, Hollybank, 85, Huddersfield Road, Liversedge, by Thursday, 28 August.

Airedale and Pennine M.C.C.—White Horse rally, 20-21 September, commencing at 10 p.m. The route will be approximately 230 miles starting from Senior Smith's Garage, White Cross, Guiseley, and finishing at the Listers Arms Hotel, Ilkley. Cars will be divided into two classes. Entries to M. Grass, Hollin Nook, 28, Leafield Terrace, Eccleshill, Bradford, 2, by 12 September. Entry fee £1 5s, £1 10s up to 15 September. Entries limited to 75.

Malden and District M.C.—Driving tests, 7 September, starting from City Square, U.S.A.F. Base, Denham. Invited clubs: American D.C., Brent Vale M.C., Cernian M.C., Guildford M.C., Harrow C.C., London M.C., North London E.C.C., Mid-Thames C.C., Mid-Surrey A.C. Entries to J. Toogood, 3, Dysart Avenue, Kingston-on-Thames, Surrey, by 27 August. Entry fee 15s, team fee 15s. Entries limited to 75.

Thames Estuary A.C.—Speed hill climb, 24 August, Stapleford Airfield, Chigwell, Essex. Cars will be divided into 13 classes. Entries to S. L. Offord, 68, Exford Avenue, Westcliff-on-Sea, Essex. Entry fee £1 10s. Entries limited to 120.

Mid-Cheshire M.C.—Driving tests, 7 September, Royal Naval Air Station, Stretton, starting at 2 p.m. Entries to A. S. Atkinson, 12, Crewe Road, Shavington, Nr. Crewe, by 3 September. Entry fee 7s 6d per driver. Maximum number of entries 75.

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On Knowing Your Way
Around Sports Cars, Then
You Owe it to Yourself
to Try a*

PORSCHE"

from Stephen F. Wilder's road-test report on the 1600 Fixed-Head Coupé in "Sports Cars Illustrated" (U.S.A.), May, 1958.

"Porsches have always been delectable motor cars, and in this one they have reached a new peak. If you've ever liked the Porsche before, then I can recommend the '58s without reservation.

"If you demand more acceleration than is offered by this model, then the new Supers (which no longer have roller cranks) appear to be very good bets.

"Those who feel Porsches are too expensive should give one a careful looking over to realize the amount of value received."

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AN AS-NEW JAVELIN; possibly the most sought-after and difficult-to-find car in England. At last Welbeck Motors have found one. Incredible as it may seem, although six years old, the car is indistinguishable from new. And when you drive it you wonder whether there has been any progress at all in 1½-litre car design.

The mileage is only 28,000; the colour is maroon with beige hide; H.M.V. radio is fitted; the instruction book is inside; the tools are unused.

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At last, the long awaited Alexander twin carburettor conversion for the versatile Victor. Fully patented and based on an entirely new principle of resonant induction this latest addition to our range gives unprecedented flexibility with tremendous acceleration and faster cruising, all without impairing the fuel economy for which the Victor is justly famous and without even lifting the cylinder head.

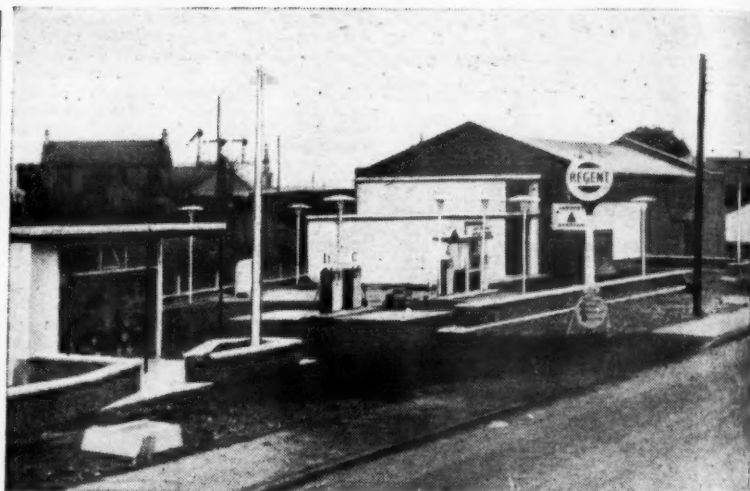
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- 40 to 60 in top—7 seconds faster.
- Maximum speed 80 plus.
- Increased power now peaks 200 r.p.m. lower.
- No alteration to valve gear or cylinder head.
- No increase in mechanical noise level.
- Moderate in price and quickly fitted.

Get to know more about this intriguing modification for your Victor. Write your name and address in the margin and post off without delay.

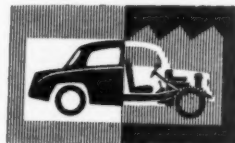
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HADDENHAM, BUCKS. Tel. 345



The Blue Triangle service station has recently been opened just outside Bangor, Northern Ireland. Although without cover for cars refuelling, the forecourt has plenty of room. Regent fuels are dispensed from 7 a.m. to 11 p.m. seven days a week

Trade and



Industry

G.K. Tyre Services have moved from Derwent Street to Alfreton Road, Derby. The company, whose business is expanding, are the tyre specialists of the Kenning Motor Group.

Mr. W. Whittaker has been appointed a director of Claude Rye Bearings, Fulham Road, London, S.W.6. The company now carries stocks of more than five million bearings.

A new factory designed solely for the production of steel-cord tyres is being planned for construction in Burnley, Lancashire, by the Michelin Tyre Co., Ltd. Production is to begin in 1960.

An incorrect address was recently given for Latex Upholstery, Ltd., 41, Lonsdale Road, Bayswater, London, who make seats and improve existing seats. The postal district should have been W.11, not W.1.

Dr. C. D. J. Statham, previously in charge of mining division sales, has been appointed general sales manager by Oldham and Son, Ltd., of Manchester. Mr. T. J. Martin has been appointed purchasing manager.

After nearly 21 years' service with The Car Mart, Ltd., Mr. Brian Simmonds is leaving to join Guy Salmon Automobiles. He will take over the company's recently acquired premises in High Street, Thames Ditton, Surrey.

A new company called Aviamotive Services, Ltd., Accommodation Road, Hodford Road, London, N.W.11. has been formed to import, as sole concessionaires, Swedish Johnson lamps. The company are also export distributors of Speedwell performance conversions. The managing director is Mr. L. Arnsteine, who until recently was advertising manager of Delaney Gallay, Ltd.

A new Manchester sales branch has been opened by Ferodo, Ltd., at 57, Upper Chorlton Road, Manchester, 16. The district manager is Mr. C. P. Lyall, the telephone number Moss-side 3326.

For the 12 months ended 30 June, trading profits of the Triplex group was £1,400,672, compared with £911,062 previously. In addition to maintaining the 20 per cent dividend, a special interim dividend of 7½ per cent has been declared.

Walker and Watt (Automobile Engineers), Ltd., Battledown Service Station, Priors Road, Cheltenham, have won the annual contest organized by the Mobil Oil Co., Ltd. The competition is primarily intended to improve forecourt service.

Girling, Ltd., are organizing a brake testing fortnight at Smithfield Garage, Digbeth, Birmingham, to begin on Monday, 25 August, at which motorists may have the brakes of their cars tested free; Lt. Col. R. Vernon C. Brook, chairman of the Birmingham Accident Prevention Council, will perform the opening.

Information Sought

Correspondence, addressed c/o *The Autocar*, can be forwarded on behalf of readers seeking the following handbooks and information:

No. 17456, 1938 12-70 h.p. *Alvis*
"J.F.R.-C."—All possible information and a handbook or workshop manual.

No. 17457, 1939 *Skoda Sports Saloon*
"G.J."—All possible information and a handbook.

No. 17458, *Sunbeam-Talbot Ten*
"A.G.R."—Details and hints for removing sliding panel of sunshine roof. Also a handbook.

No. 17459, *Handbooks Required*
"D.M.A."—1951 *Sunbeam-Talbot 90*.

"B.M.A."—1950 *Austin A.125 Shearline* workshop manual.

"D.M.N."—1954 *Austin A.40 Somerset*.

A.C.
Ace
Ace-Bris
Acoca-B
ALFA
Giulietto
Giulietto
1900 Su
Super Sp
ALLAR
Palm Be
Palm Be
Gran Tu
ALVIS
Sports
Conver
AMBA
Super 4
Estate
Custom
Country
ARMS
Sapphir
(autom
Limousi
(autom
ASTOI
DB Mk.
Drop-he
ASTRA
Utility
AUSTI
A.35 2-
2-door d
A.35 4-
4-door d
Country
A.35 Ca
A.35 de
A.95 W
A.95 de
Country
A.105
(autom
Vanden
(autom
Gipsy
(diesel)
AUSTI
Sprite
100-Six
BENT
Series S
L.W.B.
Freeston
Hooper
H. J. Mu
James Y
Contine
H. J. Mu
Four doo
Park W
BERKE
Two-se
492 c.c.
B.M.W
501 2.6
502 2.6
502 3.2
502S 3.2
503
BORG
Isabella
Combi
Touring
TS coup
BRIST
405
Conver
BUICK
63 Cent
CADI
6309 Fl
6239D
CHEV
Bel-Air
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DK-400
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NEW CAR PRICES

U.K. List Price With Tax

U.K. List Price With Tax

A.C.	£	s	d	£	s	d
Acra	1,188	0	0	1,783	7	0
Acra-Bristol	1,443	0	0	2,165	17	0
Acra	1,446	0	0	2,170	7	0
Acra-Bristol	1,700	0	0	2,551	7	0
ALFA ROMEO						
Giulietta	1,678	0	0	1,918	7	0
Giulietta 71	1,395	0	0	2,093	17	0
Giulietta Veloce	1,798	0	0	2,698	7	0
1900 Super	1,665	0	0	2,498	17	0
Super Sprint	2,250	0	0	3,376	7	0
ALLARD						
Palm Beach (Ford)	1,050	0	0	1,576	7	0
Palm Beach (Jaguar)	1,300	0	0	1,951	7	0
Gran Turismo	1,700	0	0	2,551	7	0
ALVIS						
Sports saloon 3-litre	1,995	0	0	2,993	17	0
Convertible	2,195	0	0	3,293	17	0
AMBASSADOR						
Super 4-door	1,630	0	0	2,446	7	0
Estimate car	1,725	0	0	2,588	17	0
Custom 4-door	1,700	0	0	2,551	7	0
Country estate car	1,795	0	0	2,693	17	0
ARMSTRONG SIDDELEY						
Sapphire 346	1,100	0	0	1,651	7	0
(automatic)	1,195	0	0	1,793	17	0
Limousine	1,910	0	0	2,866	7	0
(automatic)	2,099	0	0	3,149	17	0
ASTON MARTIN						
DB Mk. III	2,050	0	0	3,076	7	0
Drop-head Coupé	2,300	0	0	3,451	7	0
ASTRA						
Utility	308	0	0	471	16	0
AUSTIN						
A.35 2-door	379	0	0	569	17	0
2-door de luxe	387	15	0	582	19	6
A.35 4-door	396	10	0	596	2	0
4-door de luxe	400	0	0	601	7	0
Countryman	444	0	0	667	7	0
A.55 Cambridge	538	0	0	808	7	0
A.55 de luxe	570	0	0	856	7	0
A.95 Westminster	689	0	0	1,034	17	0
A.95 de luxe	719	0	0	1,079	17	0
Countryman	834	0	0	1,252	7	0
A.105	823	0	0	1,235	17	0
(automatic)	885	10	0	1,329	12	0
Vanden Plas	962	10	0	1,475	2	0
(automatic)	1,045	0	0	1,568	17	0
Gipsy	650	0	0	650	0	0
(diesel)	755	0	0	755	0	0
AUSTIN-HEALEY						
Sprite	445	0	0	668	17	0
100-Six	817	0	0	1,226	17	0
BENTLEY						
Series S	3,695	0	0	5,543	17	0
L.W.B.	4,595	0	0	6,890	17	0
Freestone and Webb	5,187	0	0	7,781	17	0
Hooper	4,990	0	0	7,486	7	0
H. J. Mulliner	5,455	0	0	8,183	17	0
James Young	4,915	0	0	7,373	17	0
Continental						
H. J. Mulliner	5,275	0	0	7,913	17	0
Four door	5,355	0	0	8,033	17	0
Park Ward	4,995	0	0	7,493	17	0
BERKELEY						
Two-seater 328 c.c.	332	7	6	490	18	3
492 c.c. de luxe	432	9	0	650	0	0
B.M.W.						
501 2.6	1,638	0	0	2,458	7	0
502 2.6	1,792	0	0	2,687	7	0
502 3.2	1,970	0	0	2,956	7	0
502S 3.2	2,165	0	0	3,248	17	0
503	3,500	0	0	5,251	7	0
BORGWARD						
Isabella	830	0	0	1,246	7	0
Combi estate car	880	0	0	1,321	7	0
Touring sport	950	0	0	1,426	7	0
TS coupé	1,330	0	0	1,996	7	0
BRISTOL						
405	2,390	0	0	3,586	7	0
Convertible	2,450	0	0	3,767	7	0
BUICK						
63 Century	2,175	0	0	3,263	17	0
CADILLAC						
6309 Fleetwood	3,425	0	0	5,138	17	0
6239D sedan de ville	3,125	0	0	4,688	17	0
CHEVROLET						
Bel-Air	1,410	0	0	2,116	7	0
Sport	1,440	0	0	2,161	7	0
Convertible	1,555	0	0	2,333	17	0
Nomad estate car	1,500	0	0	2,251	7	0
Corvette	1,906	0	0	2,860	7	0
CHRYSLER						
300C	2,740	0	0	4,111	7	0
Convertible	2,960	0	0	4,441	7	0
Imperial	2,885	0	0	4,328	17	0
Crown	3,045	0	0	4,568	17	0
CITROEN						
2 c.v.	398	0	0	598	7	0
ID19	998	0	0	1,498	7	0
DS19	1,150	0	0	1,726	7	0
DAIMLER						
One-O-Four	1,595	15	4	2,395	0	0
Majestic	1,662	8	8	2,495	0	0
DK400A	2,795	15	4	4,195	0	0
DK400B	2,875	15	4	4,315	0	0
Hooper limousine	4,385	0	0	6,578	17	0

(Continued overleaf)

D.B.	£	s	d	£	s	d
Rally HBR5	1,299	2	0	1,950	0	0
DELLOW						
Mark VI	575	0	0	862	17	0
Mark VI sports	625	0	0	938	7	0
D.K.W.						
Fixed-head coupé	765	0	0	1,148	17	0
Four-door saloon	798	0	0	1,198	7	0
Universal estate car	830	0	0	1,246	7	0
1000 fixed-head coupé	850	0	0	1,276	7	0
DODGE						
Custom Royal	2,040	0	0	3,061	7	0
EDSEL						
Pacer	1,635	0	0	2,453	17	0
Corsair	1,991	0	0	2,987	17	0
Citation hardtop	2,100	10	0	3,152	2	0
FACEL VEGA						
FVS hardtop	3,150	0	0	4,726	7	0
(automatic)	2,980	0	0	4,471	7	0
FAIRTHORPE						
Atomora	426	0	0	640	7	0
Electron Minor	479	0	0	719	17	0
Electron Mk. II	769	0	0	1,154	17	0
FIAT						
500 de luxe	370	0	0	556	7	0
600	432	0	0	649	7	0
Convertible	452	0	0	679	7	0
Multipla 4/5	532	0	0	799	7	0
Multipla 6	540	0	0	811	7	0
1100	578	10	0	869	2	0
1200 Full Light	798	10	0	1,199	2	0
1400B	774	0	0	1,162	7	0
1900B	980	0	0	1,471	7	0
1900B Full Light	1,385	0	0	2,078	17	0
FORD						
Popular	295	0	0	443	17	0
Anglia	380	0	0	571	7	0
Anglia de luxe	400	0	0	601	7	0
Prefect	415	0	0	623	17	0
Prefect de luxe	438	0	0	658	8	0
Escort	434	0	0	652	7	0
Squire	463	0	0	695	17	0
Consul	545	0	0	818	17	0
Consul de luxe	580	0	0	871	7	0
Convertible	660	0	0	991	7	0
Estate car	760	0	0	1,141	7	0
Zephyr	610	0	0	916	7	0
(automatic)	725	0	0	1,088	17	0
Convertible	778	0	0	1,168	7	0
Estate car	825	0	0	1,238	17	0
Zodiac	675	0	0	1,013	17	0
(automatic)	790	0	0	1,186	7	0
Convertible	873	0	0	1,310	17	0
Estate car	895	0	0	1,343	17	0
FORD (American)						
Thunderbird hardtop	2,133	10	0	3,201	12	0
FORD (Canadian)						
Custom 300	1,307	0	0	1,961	17	0
Fairlane 500 Town	1,377	0	0	2,066	17	0
500 Town Victoria	1,409	0	0	2,144	17	0
Ranch Wagon	1,362	0	0	2,044	7	0
FORD (Germany)						
12M	702	0	0	1,054	7	0
15M	763	0	0	1,145	17	0
FRAZER NASH						
Sebring and G.T.	2,500	0	0	3,761	7	0
GOGGOMOBIL						
T.300 Mayfair	329	0	0	494	17	0
T.400 Mayfair	342	6	0	514	16	0
T.300 Regent	416	0	0	625	7	0
Convertible	458	0	0	688	17	0
TS.400 Regent	428	13	4	644	7	0
Convertible	471	0	0	707	17	0
HILLMAN						
Minx Special	498	0	0	748	7	0
Minx de luxe	529	0	0	794	17	0
Convertible	598	0	0	898	7	0
Estate car	625	0	0	938	17	0
Husky	465	0	0	698	17	0
HUMBER						
Hawk	840	0	0	1,261	7	0
(automatic)	955	0	0	1,433	17	0
Estate car	975	0	0	1,463	17	0
Touring limousine	920	0	0	1,381	7	0
ISETTA (Gt. Britain)						
300	232	8	5	349	19	6
600	319	0	0	479	17	0
JAGUAR						
2.4	996	0	0	1,495	7	0
Special equip. model	1,019	0	0	1,529	17	0
3.4	1,114	0	0	1,672	7	0
XK150 hardtop	1,175	0	0	1,763	17	0
(automatic)	1,303	0	0	1,955	17	0
Special equip. model	1,292	0	0	1,939	7	0
Convertible	1,195	0	0	1,793	17	0
Roadster	1,219	0	0	1,892	17	0
Mark VIII	1,331	0	0	1,997	17	0
(automatic)						
JENSEN						
541	1,435	0	0	2,153	17	0
541 de luxe	1,750	0	0	2,626	7	0
541 R	1,910	0	0	2,866	7	0
Interceptor	1,800	0	0	2,701	7	0
LANCIA						
Appia Series II	1,125	0	0	1,668	17	0
Aurelia Gran Turismo	2,230	0	0	3,346	7	0
Flaminia	2,500	0	0	3,715	7	0

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- 1956 CHEVROLET "Bel-Air" 4-dr. sedan, r.h.d., 6-cyl., radio, heater, electric clock, etc., 22,000 miles £1,295
- 1954 CHEVROLET "210" 4-dr. sedan, r.h.d., 6-cyl., radio, heater, w/s washers, 23,000 miles £965
- 1954 CHEVROLET "210" 4-dr. sedan, r.h.d., 6-cyl., push-button radio, heater, seat covers, w/s washers, 25,000 miles... £965
- 1953 CHEVROLET "210" 4-dr. sedan, r.h.d., 6-cyl., Motorola radio, heater... £650
- 19



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Ace-Bristol early examples fitted with a Bristol engine and gearbox and disc brakes, excellent performance, clean appearance. Opportunity to purchase at an exceptionally low price. £1,175!

AC-Ace, one of the very few of this model fitted with the latest disc brakes, coachwork modified to Le Mans design, fitted curved screen, retrimmed to match, £899!

Aceca-Bristol 1957, in pale grey and red, fitted 100 D2 type 140 h.p. engine and disc brakes exceptional roadholding with latest chassis mods. £1,950 or near offer considered.

One new example nearly ready for delivery.

Aceca-AC, choice of two excellent 1955 examples from £1,165. Ideal fast touring saloon with outstanding roadholding. Alfin drum brakes and sensible fuel consumption.

Aston Martin Mark III saloon, our next car is nearly ready for delivery and a prospective customer will still be able to specify personal choice of colours on this vehicle, yet obtain it quickly list price. Demonstration with pleasure.

Austin-Healey 100/six, latest series 2-seater in white/black, expected any day. Available with discs and 140 h.p. engine to customer's specification. List price, plus extras.

Dauphines, choice of 3 used cars from £575. Tuned versions, capable of 85 m.p.h. with latest series, tuning kit available, new or used, low suspension, high gear steering, etc. New models immediate delivery from Stock.

TR3A immediate delivery from Stock of one with anti-roll bar, occasional seat and Michelin X tyres. List price, plus extras.

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U.K. List Price • With Tax

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Capri	2,600	0	0	3,901	7	0
Première	2,869	10	0	4,305	12	0
Continental hardtop	3,142	10	0	4,715	2	0
LLOYD						
LP600	390	0	0	586	7	0
LC600 Cabrio	427	0	0	641	17	0
LS600 Combi	405	0	0	608	17	0
LOTUS						
Seven	690	0	0	1,036	7	0
Elite	1,300	0	0	1,951	7	0
Sports	1,021	0	0	1,511	2	0
Club	1,399	0	0	1,937	7	0
Le Mans 75	1,625	0	0	2,405	4	0
MEADOWS						
Frisky	299	0	0	449	17	0
Friskysport	322	0	0	484	7	0
MERCEDES-BENZ						
180	1,195	0	0	1,793	17	0
180D (diesel)	1,295	0	0	1,889	17	0
190	1,250	0	0	1,876	7	0
190SL	1,930	0	0	2,896	7	0
219	1,430	0	0	2,146	7	0
220S	1,595	0	0	2,393	17	0
300 (automatic)	2,600	0	0	5,401	7	0
300SL Roadster	3,750	0	0	5,626	7	0
MERCURY (American)						
Medalist	1,303	0	0	2,255	17	0
Monterey	1,561	10	0	2,343	10	0
Montclair	1,888	0	0	2,833	7	0
Parklane	2,224	10	0	3,368	2	0
Commuter estate car	1,778	0	0	2,668	7	0
MERCURY (Canadian)						
Monterey	1,481	0	0	2,222	17	0
Phaeton	1,640	0	0	2,461	7	0
Montclair	1,716	0	0	2,575	7	0
Phaeton	1,765	0	0	2,648	17	0
METROPOLITAN						
Hardtop	498	10	0	749	2	0
Convertible	516	0	0	775	7	0
M.G.						
MGA	663	0	0	995	17	0
Hardtop	724	0	0	1,087	7	0
Twin Cam MGA	843	0	0	1,265	17	0
Magnette	714	0	0	1,072	7	0
MORGAN						
4/4 Series II	498	0	0	748	7	0
Competition	550	0	0	826	7	0
Plus 4 (TR) 2-seater	645	0	0	968	17	0
Convertible	693	0	0	1,040	17	0
Plus 4 (Vanguard)	594	0	0	892	7	0
Convertible	641	0	0	962	17	0
MORRIS						
Minor 1000 2-door	416	0	0	625	7	0
2-door de luxe	433	10	0	651	12	0
4-door	441	0	0	662	17	0
4-door de luxe	462	0	0	694	7	0
Tourer	416	0	0	625	7	0
Tourer de luxe	433	0	0	651	12	0
Traveller	471	10	0	708	12	0
Traveller de luxe	488	10	0	734	2	0
Cowley	555	10	0	834	12	0
Oxford III	589	0	0	884	17	0
Traveller	665	0	0	999	17	0
OLDSMOBILE						
88	1,820	0	0	2,731	7	0
Super 88	1,965	0	0	2,948	17	0
98	2,260	0	0	3,391	7	0
PACKARD						
4-door Sedan	1,680	0	0	2,521	7	0
Station Wagon	1,745	0	0	2,623	17	0
Hawk hardtop	2,004	0	0	3,007	7	0
PANHARD						
Dyna Grand Standing	702	8	8	1,055	0	0
Convertible	1,032	8	8	1,550	0	0
PEERLESS						
G.T. 2-litre	998	0	0	1,498	7	0
PEUGEOT						
203	633	9	1	952	8	2
403	796	2	11	1,195	11	5
Estate car	965	0	0	1,298	17	0
PLYMOUTH						
Savoy Vee-8	1,718	0	0	2,578	7	0
Belvedere convertible	1,790	0	0	2,686	7	0
Savoy Suburban	1,915	0	0	2,773	17	0
Fury	1,890	0	0	2,791	7	0
PONTIAC						
Chieftain Catalina	1,980	0	0	2,971	7	0
Bonneville Custom	2,300	0	0	3,461	7	0
Super Chief Catalina	2,040	0	0	3,061	7	0
Star Chief Catalina	2,150	0	0	3,226	7	0
PORSCHE						
346A/1600 fixed head	1,330	0	0	1,996	7	0
Convertible D	1,330	0	0	1,996	7	0
Hardtop (detachable)	1,450	0	0	2,176	7	0
Cabriolet (detachable)	1,490	0	0	2,236	7	0
356A/1500 fixed head	2,100	0	0	3,151	7	0
Carrera hardtop	2,220	0	0	3,331	7	0
Carrera Cabriolet	2,260	0	0	3,391	7	0
PRINCESS						
IV	2,250	0	0	3,376	7	0
IV limousine	2,360	0	0	3,541	7	0
L.W.B. models	2,150	0	0	3,226	7	0
RAMBLER						
De luxe	1,250	0	0	1,876	7	0
Super	1,285	0	0	1,928	17	0
Estate car	1,375	0	0	2,063	17	0
Custom	1,350	0	0	2,026	7	0
Estate car	1,440	0	0	2,161	7	0

RENAULT	£	s	d	£	s	d
750	437	0	0	656	17	0
Dauphine	505	0	0	758	17	0
(Ferlec clutch)	530	10	0	797	2	0
Frigate de luxe	894	10	0	1,343	2	0
Transfluid	987	0	0	1,481	17	0
Domaine estate car	894	10	0	1,343	2	0
RILEY						
One-point-five	575	0	0	863	17	0
Two-point-six	940	0	0	1,411	7	0
(automatic)	1,045	0	0	1,568	17	0
ROLLS-ROYCE						
Silver Cloud	3,795	0	0	5,693	17	0
Limousine	4,595	0	0	6,783	17	0
Freestone and Webb	5,282	0	0	7,924	7	0
Hooper	5,085	0	0	7,628	17	0
H. J. Mulliner	5,550	0	0	8,326	7	0
James Young	5,010	0	0	7,517	7	0
Silver Wraith						
F. and W. limousine	5,638	0	0	8,458	7	0
7-passenger	5,752	0	0	8,629	7	0
Park Ward	5,495	0	0	8,243	17	0
7-passenger	5,805	0	0	8,708	17	0
H. J. Mulliner	5,625	0	0	8,438	17	0
Hooper limousine	5,580	0	0	8,371	7	0
7-passenger	5,805	0	0	8,708	17	0
James Young	5,680	0	0	8,521	7	0
ROVER						
60	883	0	0	1,325	17	0
75	963	0	0	1,445	17	0
90	999	0	0	1,499	17	0
105S	1,088	0	0	1,633	7	0
105R	1,124	0	0	1,687	7	0
105R de luxe	1,155	0	0	1,733	17	0
Land Rover II 88	640	0	0	640	0	0
Diesel	740	0	0	740	0	0
109in Basic	730	0	0	730	0	0
Diesel	820	0	0	820	0	0
107in estate car	815	0	0	1,223	17	0
SIMCA ARONDE						
Aronde 1300	532	0	0	799	7	0
Aronde Châtelaine	650	0	0	976	7	0
Elysée 1300	599	0	0	899	17	0
Monihéry	625	0	0	938	17	0
Grande Large (Flash)	679	0	0	1,019	17	0
Grande Large (Special)	705	0	0	1,058	17	0
SIMCA VEDETTE						
Beaulieu	965	10	0	1,449	12	0
SINGER						
Gazelle	598	0	0	898	7	0
Convertible	665	0	0	998	17	0
Estate car	695	0	0	1,043	17	0
SKODA						
440	525	0	0	788	17	0
Estate car	695	0	0	1,043	17	0
450 convertible	725	0	0	1,088	17	0
STANDARD						
Eight	425	0	0	637	17	0
Super Ten	435	0	0	653	17	0
Pennant	485	0	0	728	17	0
Companion estate car	495	0	0	743	17	0
Ensign	590	0	0	899	17	0
Vanguard III	675	0	0	1,013	17	0
(automatic)	790	0	0	1,186	7	0
Estate car	765	0	0	1,148	7	0
Sportsman	820	0	0	1,231	7	0
STUDEBAKER						
Scotsman	1,130	0	0	1,696	7	0
Estate car	1,240	0	0	1,861	7	0
Commander	1,400	0	0	2,101	7	0
President	1,490	0	0	2,236	7	0
SUNBEAM						
Rapier	695	0	0	1,043	17	0
Convertible	735	0	0	1,103	17	0
TRIUMPH						
TR3	699	0	0	1,049	17	0
Hardtop	734	0	0	1,102	7	0
TURNER						
A.35 Sports	575	0	0	862	17	0
UNICAR						
Model T de luxe	283	0	0	425	17	0
VAUXHALL						
Victor	498	0	0	748	7	0
Victor Super	520	0	0	781	7	0
Estate car	620	0	0	931	7	0
Velox III	655	0	0	983	17	0
Cresta II	715	0	0	1,073	17	0
VOLKSWAGEN						
Basic	435	0	0	653	17	0
Estate	505	0	0	758	17	0
Convertible	680	10	0	1,025	2	0
Karmann-Ghia coupé	822	10	0	1,235	2	0
Convertible	929	0	0	1,394	17	0
OLSELEY						
400	530	0	0	796	7	0
Seventy-fifty	660	0	0	991	7	0
Ninety III	850	0	0	1,276	7	0
(automatic)	955	0	0	1,433	17	0
THREE-WHEELERS						
C. Petite II	319	0	0	399	8	6
nd 2-seater	222	0	0	279	5	9
4-seater	254	0	0	319	8	11
onkel	360	0	0	449	15	6
Tramper	312	15	0	394	15	0
Wasserschmidt KR200	260	0	0	433	3	6
Ant Regal	346	0	0	325	6	0
Wessex Senior	259	0	0	325	0	11

